



AMERICAN ACADEMY OF  
ORTHOAEDIC SURGEONS

# Management of Rotator Cuff Pathology

## Appropriate Use Criteria

*Adapted by:*

The American Academy of Orthopaedic Surgeons Board of Directors  
September 12, 2020

*Endorsed by:*



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Please cite this appropriate use criteria as: American Academy of Orthopaedic Surgeons. Management of Rotator Cuff Pathology Appropriate Use Criteria. <https://www.aaos.org/rcauc>  
Published September 12, 2020

## Disclaimer

Volunteer physicians from multiple medical specialties created and categorized these Appropriate Use Criteria. These Appropriate Use Criteria are not intended to be comprehensive or a fixed protocol, as some patients may require more or less treatment or different means of diagnosis. These Appropriate Use Criteria represent patients and situations that clinicians treating or diagnosing musculoskeletal conditions are most likely to encounter. The clinician's independent medical judgment, given the individual patient's clinical circumstances, should always determine patient care and treatment.

## Disclosure Requirement

In accordance with American Academy of Orthopaedic Surgeons policy, all individuals whose names appear as authors or contributors to this document filed a disclosure statement as part of the submission process. All authors provided full disclosure of potential conflicts of interest prior to participation in the development of these Appropriate Use Criteria. Disclosure information for all panel members can be found in Appendix B.

## Funding Source

The American Academy of Orthopaedic Surgeons exclusively funded development of these Appropriate Use Criteria. The American Academy of Orthopaedic Surgeons received no funding from outside commercial sources to support the development of these Appropriate Use Criteria.

## FDA Clearance

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Published 2020 by the American Academy of Orthopaedic Surgeons  
9400 West Higgins Road  
Rosemont, IL 60018  
First Edition  
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**[www.OrthoGuidelines.org/auc](http://www.OrthoGuidelines.org/auc)**

To view the clinical practice guideline for this topic, please visit <http://www.orthoguidelines.org/topic?id=1027>

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# I. INTRODUCTION

## OVERVIEW

The American Academy of Orthopaedic Surgeons (AAOS) has developed this Appropriate Use Criteria (AUC) to determine appropriateness of various treatments for the management of rotator cuff pathology.

An “appropriate” healthcare service is one for which the expected health benefits exceed the expected negative consequences by a sufficiently wide margin.<sup>2</sup> Evidence-based information, in conjunction with the clinical expertise of physicians from multiple medical specialties, was used to develop the criteria in order to improve patient care and obtain the best outcomes while considering the subtleties and distinctions necessary in making clinical decisions. To provide the evidence foundation for this AUC, the AAOS Department of Clinical Quality and Value provided the writing panel and voting panel with the AAOS Clinical Practice Guideline on rotator cuff injuries, which can be accessed via the following link:

<http://www.orthoguidelines.org/topic?id=1027>.

The purpose of this AUC is to help determine the appropriateness of clinical practice guideline recommendations for the heterogeneous patient population routinely seen in practice. The best available scientific evidence is synthesized with collective expert opinion on topics where gold standard randomized clinical trials are not available or are inadequately detailed for identifying distinct patient types. When there is evidence corroborated by consensus that expected benefits substantially outweigh potential risks, exclusive of cost, a procedure is determined to be appropriate. The AAOS uses the RAND/UCLA Appropriateness Method (RAM)<sup>2</sup> to assess the appropriateness of a particular treatment. This process includes reviewing the results of the evidence analysis, compiling a list of clinical vignettes, and having an expert panel comprised of representatives from multiple medical specialties to determine the appropriateness of each of the clinical indications for treatment as “Appropriate,” “May be Appropriate,” or “Rarely Appropriate.” To access a more user-friendly version of the appropriate use criteria for this topic online, please visit our AUC web-based application at [www.orthoguidelines.org/auc](http://www.orthoguidelines.org/auc) or download the OrthoGuidelines app from Google Play or Apple Store.

These criteria should not be construed as including all indications or excluding indications reasonably directed to obtaining the same results. The criteria intend to address the most common clinical scenarios facing general clinicians and other qualified physicians managing patients with rotator cuff pathologies. The ultimate judgment regarding any specific criteria should address all circumstances presented by the patient and the needs and resources particular to the locality or institution. It is also important to state that these criteria are not meant to supersede clinician expertise and experience or patient preference.

## INTERPRETING THE APPROPRIATENESS RATINGS

To prevent misuse of these criteria, it is extremely important that the user of this document understands how to interpret the appropriateness ratings. The appropriateness rating scale ranges from one to nine and there are three main range categories that determine how the median rating is defined (i.e. 1-3 = “Rarely Appropriate”, 4-6 = “May Be Appropriate”, and 7-9 = “Appropriate”). Before these AUCs are consulted, the user should read through and understand all contents of this document.

## **INCIDENCE AND PREVALENCE**

Approximately 4.5 million patient visits related to shoulder pain occur each year in the United States. More than two-thirds of patients treated with rotator cuff repair are of working age. The prevalence of rotator cuff tears increases with age, with 54% of asymptomatic patients aged 60 years and greater having sustained either a partial or complete RCT on magnetic resonance imaging. Ultrasound (US) studies by Tempelhof et al. reveal that 13% of individuals in their fifth decade, 20% in their sixth decade, and 31% in their seventh decade of life have RCTs. From their study on 306 cadavers, Lohr and Uthoff noted a 19% and 32% prevalence of full and partial thickness tears, respectively (Sher, 1995; Tempelhof, 1999; Lohr, 2007). Not all of these tears are symptomatic.

## **ETIOLOGY**

Rotator cuff tears have two main causes: injury and degeneration. Acute tears are usually due to injury. This type of tear can occur in isolation or with other shoulder injuries, such as a broken collarbone or dislocated shoulder. Degenerative tears are more common and are the result of a wearing down of the tendon that occurs slowly over time. This degeneration naturally occurs as we age. Rotator cuff tears are more common in the dominant arm (OrthoInfo, 2007).

## **POTENTIAL BENEFITS, HARMS, AND CONTRAINDICATIONS**

There are risks associated with both surgical and non-operative treatment of rotator cuff tears, including, but not limited to, infection, stiffness, complications, and recovery time for surgical management, and increased structural damage and functional limitations for non-surgical management. Contraindications vary widely based on the treatment and the patient.

## **II. METHODS**

This AUC for rotator cuff pathology is based on a review of the available literature and a list of clinical scenarios (i.e. criteria) constructed and voted on by experts in orthopaedic surgery and other relevant medical fields. This section describes the methods adapted from RAM<sup>2</sup>. This section also includes the activities and compositions of the various panels that developed, defined, reviewed, and voted on the criteria.

Two panels participated in the development of the Rotator Cuff Pathology AUC, a writing panel and a voting panel. Members of the writing panel developed a list of patient scenarios and relevant treatment options. Additional detail on how the writing panel developed the patient scenarios and treatments is below. The voting panel participated in two rounds of voting. During the first round, the voting panel was given approximately one month to independently rate the appropriateness of each the provided treatments for each of the relevant patient scenarios as ‘Appropriate’, ‘May Be Appropriate’, or ‘Rarely Appropriate’ via an electronic ballot. How the voting panel rates for appropriateness is described in more detailed below. After the first round of voting/appropriateness ratings were submitted, AAOS staff calculated the median ratings for each patient scenario and specific treatment. A virtual voting panel meeting was held on Saturday, April 25, 2020. During this meeting voting panel members addressed the scenarios/treatments which resulted in disagreement from round one voting. The voting panel members discussed the list of assumptions, patient indications, and treatments to identify areas

that needed to be clarified/edited. After the discussion and subsequent changes, the group was asked to rerate their first-round ratings during the voting panel meeting, only if they were persuaded to do so by the discussion and available evidence. There was no attempt to obtain consensus about appropriateness.

The AAOS Appropriate Use Criteria Section, the AAOS Council on Research and Quality, and the AAOS Board of Directors sequentially approved the Rotator Cuff Pathology AUC. The AAOS submits this AUC to the National Guidelines Clearinghouse and, in accordance with the National Guidelines Clearinghouse criteria, will update or retire this AUC within five years of the publication date.

## **DEVELOPING CRITERIA**

Panel members of the Rotator Cuff Pathology AUC developed patient scenarios using the following guiding principles:

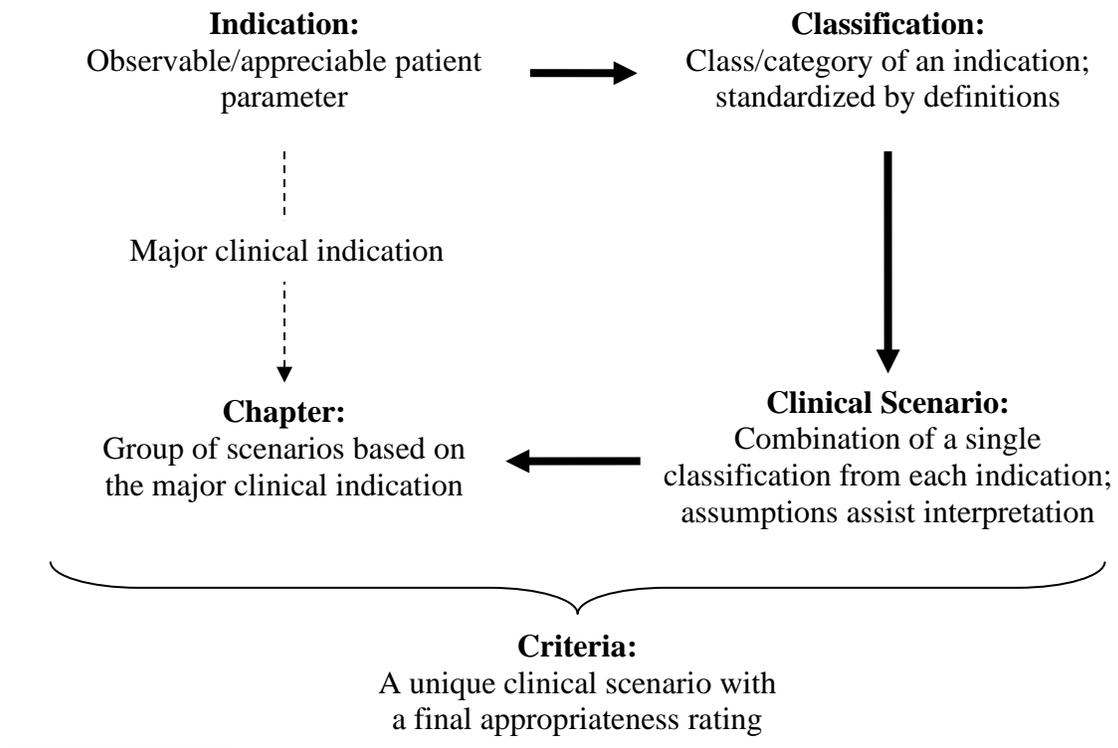
- 1) **Comprehensive** – Covers a wide range of patients.
- 2) **Mutually Exclusive** - There should be no overlap between patient scenarios/indications.
- 3) **Homogenous** –The final ratings should result in equal application within each of the patient scenarios.
- 4) **Manageable** – Number of total voting items (i.e. # of patient scenarios x # of treatments) should be practical for the voting panel. Target number of total voting items = 2000-6000. This means that not all patient indications and treatments can be assessed within one AUC.

The writing panel developed the scenarios by categorizing patients in terms of indications evident during the clinical decision-making process. These scenarios relied upon definitions and general assumptions, mutually agreed upon by the writing panel during the development of the scenarios. These definitions and assumptions were necessary to provide consistency in the interpretation of the clinical scenarios among experts voting on the scenarios, and readers using the final criteria.

## **FORMULATING INDICATIONS AND SCENARIOS**

The AUC writing panel began the development of the scenarios by identifying clinical indications typical of orthopaedic patients commonly presenting with rotator cuff pathology in clinical practice. Indications are most often parameters observable by the clinician, including symptoms or results of diagnostic tests. Additionally, “human factor” (e.g. activity level) or demographic variables can be considered.

**FIGURE 1. DEVELOPING CRITERIA**



Indications identified in clinical trials, derived from patient selection criteria, included in AAOS Clinical Practice Guidelines (<http://www.orthoguidelines.org/topic?id=1027>) served as a starting point for the writing panel, as well as ensured that these AUCs referenced the evidence base for this topic. The writing panel considered this initial list and other indications based on their clinical expertise and selected the most clinically relevant indications. The writing panel then defined distinct classes for each indication to stratify/categorize the indication.

The writing panel organized these indications into a matrix of clinical scenarios that addressed all combinations of the classifications. The writing panel was given the opportunity to remove any scenarios that rarely occur in clinical practice. The major clinical decision-making indications chosen by the writing panel divided the matrix of clinical scenarios into chapters, as follows: tear size, presentation, symptom severity, identifiable factors that negatively affect healing or outcome, atrophy/fatty infiltration, response to previous treatment..

### **CREATING DEFINITIONS AND ASSUMPTIONS**

The Rotator Cuff Pathology AUC writing panel constructed concise and explicit definitions for the indications and classifications. This standardization helps ensure that the way the writing panel defined the patient indications is consistent among those reading the clinical scenario matrix or the final criteria. Definitions create explicit boundaries when possible and are based on standard medical practice or existing literature.

Additionally, the writing panel formulated a list of general assumptions in order to provide more consistent interpretations of a scenario. These assumptions differed from definitions in that they identified circumstances that exist outside of the control of the clinical decision-making process. Assumptions also address the use of existing published literature regarding the effectiveness of treatment and/or the procedural skill level of physicians. Assumptions also highlight intrinsic methods described in this document such as the role of cost considerations in rating appropriateness, or the validity of the definition of appropriateness. The main goal of assumptions is to focus scenarios so that they apply to the average patient presenting to an average physician at an average facility.<sup>1</sup>

The definitions and assumptions should provide all readers with a common starting point in interpreting the clinical scenarios. The list of definitions and assumptions accompanied the matrix of clinical scenarios in all stages of AUC development and appears in the Writing Panel section of this document.

## **LITERATURE REVIEW**

The Clinical Practice Guideline on the Management of Rotator Cuff Injuries, was used as the evidence base for this AUC (see here: <http://www.orthoguidelines.org/topic?id=1027>). This guideline helped to inform the decisions of the writing panel and voting panel where available and necessary.

## **VOTING PANEL MODIFICATIONS TO WRITING PANEL MATERIALS**

At the start of the virtual voting panel meeting, the voting panel was reminded that they can amend the original writing panel materials if the amendments resulted in more clinically relevant and practical criteria. To amend the original materials, instructed voting panel member must make a motion to amend and another member must “second” that motion, after which a vote is conducted. If the majority of voting panel members voted “yes” to amend the original materials, the amendments were accepted. The following changes were made between round 1 and round 2:

- removed scenarios with “Response to Previous Treatment”
- removed scenarios with acute presentation and G 3-4
- assumption added indicating that appropriateness is based on surgical plan.

## **DETERMINING APPROPRIATENESS**

### **VOTING PANEL**

As mentioned above, a multidisciplinary panel of clinicians was assembled to determine the appropriateness of treatments for the Rotator Cuff Pathology AUC. A non-voting moderator, who is an orthopaedic surgeon, but is not a specialist in the treatment of rotator cuff pathology, moderated the voting panel. The moderator was familiar with the methods and procedures of AAOS Appropriate Use Criteria and led the panel (as a non-voter) in discussions. Additionally, no member of the voting panel was involved in the development, i.e. writing panel, of the scenarios.

The voting panel used a modified Delphi procedure to determine appropriateness ratings. The voting panel participated in two rounds of voting while considering evidence-based information

provided in the literature review. While cost is often a relevant consideration, panelists focused their appropriateness ratings on the effectiveness of treatments for rotator cuff pathologies.

### RATING APPROPRIATENESS

When rating the appropriateness of a scenario, the voting panel considered the following definition:

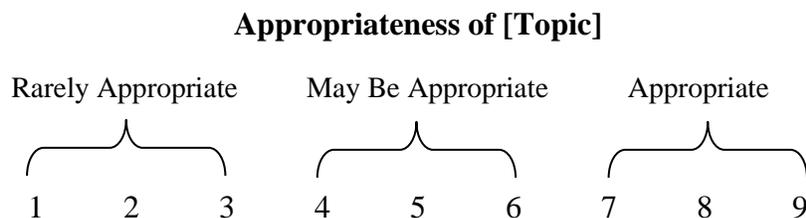
“An appropriate treatment for rotator cuff pathology is one for which the treatment **is** generally acceptable, **is** a reasonable approach for the indication, and **is** likely to improve the patient’s health outcomes or survival.”

The voting panel rated each scenario using their best clinical judgment, taking into consideration the available evidence, for an average patient presenting to an average physician at an average facility as follows:

**FIGURE 2. INTERPRETING THE 9-POINT APPROPRIATENESS SCALE**

<b>Rating</b>	<b>Explanation</b>
7-9	<b>Appropriate:</b> Appropriate for the indication provided, meaning treatment <b>is</b> generally acceptable and <b>is</b> a reasonable approach for the indication and <b>is</b> likely to improve the patient’s health outcomes or survival.
4-6	<b>May Be Appropriate:</b> Uncertain for the indication provided, meaning treatment <b>may</b> be acceptable and <b>may</b> be a reasonable approach for the indication, but with uncertainty implying that more research and/or patient information is needed to further classify the indication.
1-3	<b>Rarely Appropriate:</b> <b>Rarely</b> an appropriate option for management of patients in this population due to the lack of a clear benefit/risk advantage; <b>rarely</b> an effective option for individual care plans; exceptions should have documentation of the clinical reasons for proceeding with this care option (i.e. procedure is not generally acceptable and is not generally reasonable for the indication).

Each panelist uses the scale below to record their response for each scenario:



## **ROUND ONE VOTING**

The first round of voting occurred after approval of the final indications, scenarios, and assumptions by the writing panel. The voting panel rated the scenarios electronically using the AAOS AUC Electronic Ballot Tool, a personalized ballot created by AAOS staff. There was no interaction between voting panel members while completing the first round of voting. Panelists considered the following materials:

- The instructions for rating appropriateness
- The completed literature review, that is appropriately referenced when evidence is available for a scenario
- The list of indications, definitions, and assumptions, to ensure consistency in the interpretation of the clinical scenarios

## **ROUND TWO VOTING**

The second round of voting occurred during the virtual voting panel meeting on April 25, 2020. Prior to the meeting, each voting panelist received a personalized document that included his/her first-round ratings along with summarized results of the first-round ratings that resulted in disagreement. These results indicated the frequency of ratings for a scenario for all panelists. The document contained no identifying information for other panelists' ratings. The moderator also used a document that summarized the results of the panelists' first round voting. These personalized documents served as the basis for discussions of scenarios which resulted in disagreement.

During the discussion, the voting panel members were allowed to add or edit the assumptions list, patient indications, and/or treatments if clarification was needed. Voting panel members were also able to record a new rating for any scenarios/treatments, if they were persuaded to do so by the discussion and/or the evidence. There was no attempt to obtain consensus among the panel members. After the final ratings were submitted, AAOS staff used the AAOS AUC Electronic Ballot Tool to export the median values and level of agreement for all voting items.

## **FINAL RATINGS**

Using the median value of the second-round ratings, AAOS staff determined the final levels of appropriateness. Disagreement among raters can affect the final rating. Agreement and disagreement were determined using the BIOMED definitions of Agreement and Disagreement, as reported in the RAND/UCLA Appropriate Method User's Manual <sup>2</sup>, for a panel of 8-10 voting members (see Figure 3 below). The 8-10 panel member disagreement cutoff was used for this voting panel. For this panel size, disagreement is defined as when  $\geq 3$  members' appropriateness ratings fell within the appropriate (7-9) and rarely appropriate (1-3) ranges for any scenario (i.e.  $\geq 3$  members' ratings fell between 1-3 and  $\geq 3$  members' ratings fell between 7-9 on any given scenario and its treatment). If there is still disagreement in the voting panel ratings after the last round of voting, that voting item is labeled as "5" regardless of median score. Agreement is defined as  $\leq 2$  panelists rated outside of the 3-point range containing the median.

**FIGURE 3. DEFINING AGREEMENT AND DISAGREEMENT FOR APPROPRIATENESS RATINGS**

Panel Size	<u>Disagreement</u>	<u>Agreement</u>
	Number of panelists rating in each extreme (1-3 and 7-9)	Number of panelists rating outside the 3-point region containing the median (1-3, 4-6, 7-9)
<b>8,9,10</b>	$\geq 3$	$\leq 2$
11,12,13	$\geq 4$	$\leq 3$
14,15,16	$\geq 5$	$\leq 4$

*Adapted from RAM<sup>1</sup>*

The classifications in the table below determined final levels of appropriateness.

**FIGURE 4. INTERPRETING FINAL RATINGS OF CRITERIA**

<b>Level of Appropriateness</b>	<b>Description</b>
Appropriate	<ul style="list-style-type: none"> <li>• Median panel rating between 7-9 and no disagreement</li> </ul>
May Be Appropriate	<ul style="list-style-type: none"> <li>• Median panel rating between 4-6 or</li> <li>• Median panel rating 1-9 with disagreement</li> </ul>
Rarely Appropriate	<ul style="list-style-type: none"> <li>• Median panel rating between 1-3 and no disagreement</li> </ul>

**REVISION PLANS**

These criteria represent a cross-sectional view of current use of treatments for rotator cuff pathology and may become outdated as new evidence becomes available or clinical decision-making indicators are improved. In accordance with the standards of the National Guideline Clearinghouse, AAOS will update or withdraw these criteria in five years. AAOS will issue updates in accordance with new evidence, changing practice, rapidly emerging treatment options, and new technology.

## DISSEMINATING APPROPRIATE USE CRITERIA



All AAOS AUCs can be accessed via a user-friendly app that is available via the OrthoGuidelines website ([www.orthoguidelines.org/auc](http://www.orthoguidelines.org/auc)) or as a native app via the Apple and Google Play stores.

Publication of the AUC document is on the AAOS website at [<http://www.aaos.org/auc>]. This document provides interested readers with full documentation about the development of Appropriate Use Criteria and further details of the criteria ratings.

AUCs are first announced by an Academy press release and then published on the AAOS website. AUC summaries are published in the *AAOS Now* and the *Journal of the American Academy of Orthopaedic Surgeons (JAAOS)*. In addition, the Academy's Annual Meeting showcases the AUCs on Academy Row and at Scientific Exhibits.

The dissemination efforts of AUC include web-based mobile applications, webinars, and online modules for the Orthopaedic Knowledge Online website, radio media tours, and media briefings. In addition, AUCs are also promoted in relevant Continuing Medical Education (CME) courses and distributed at the AAOS Resource Center.

### III. PATIENT INDICATIONS AND TREATMENTS

#### ASSUMPTIONS

The purpose of this AUC is to report on the optimal management of symptomatic full-thickness rotator cuff tears based on expert experience and review of the literature as an appropriate use document for AAOS members, assuming the patient has sufficient pain and/or dysfunction that they are seeking out the opinion of an orthopaedist and that the treating clinician is trained and capable of effectively performing the recommended treatment(s). This AUC is not meant to be used as a standalone algorithm and should be used in conjunction with clinical evaluation, clinician judgment, and patient preference. Confounding factors and concurrent diagnoses may alter the treatment. The target patient group is assumed to have a clinical history (i.e. anterolateral shoulder pain not radiating past the elbow), physical examination (e.g.. weakness with testing rotator cuff strength, positive lift off or belly press test, external rotation lag, positive drop arm test, and/or pain relief but sustained weakness after impingement test), and imaging findings (i.e. MRI or ultrasound) all consistent with a full-thickness rotator cuff tear. This exercise implies that imaging results have been obtained for treatment decision purposes. This does not imply that this document recommends an MRI be obtained in all scenarios. Several caveats and confounding variables must be addressed before the physician can start applying these criteria to treat their patients. Rotator cuff tears can present in an acute or chronic fashion.

The clinician has to take a full history, as well as conduct a thorough physical exam. Pain patterns that do not fit or are suggestive of other pathologies need to be assessed, i.e. radiculopathy. The physical exam should include assessment of potential alternative pathologies with a similar presentation (adhesive capsulitis) that may exist separately from or concurrently with rotator cuff pathology.

It is assumed that the patient scenarios are a snapshot in time. The patient scenarios do not account for changes in symptoms and other findings that may occur during follow-up. That is, a patient presenting initially in one scenario may subsequently present in a different scenario on follow-up. Furthermore, the AUC voting panel acknowledges that each AUC scenario is a generalization based only on a handful of prognostic factors and only these factors were considered when voting was conducted. Additional factors that were not considered, such as patient age or participation in professional sports, might drastically alter the vote for any specific patient scenario.

For surgical candidates with any other concomitant diagnoses, such as biceps tendonitis, labral fraying/tearing, and acromioclavicular arthritis with osteophytes, these appropriate use criteria may still be applicable if the candidate meets both of the following conditions:

1. After the history, exam, and imaging review, the clinician determines that the rotator cuff tear accounts for the majority of the symptoms.
2. Treatment of this secondary pathology is necessary as part of the surgical procedure to treat potential pain generators and relieve pathology that may deteriorate the surgical outcome.

Ultimately, the treating physician needs to a) tailor the treatment to the severity of the symptoms as described by the patient and appreciated through the history and b) use their expertise,

knowledge, and experience to treat the individual patient with the optimal management (considering patient's expectations) for that particular patient after discussing the options with the patient.

### **CONDITIONS NOT COVERED WITHIN THIS DOCUMENT**

These conditions listed below are specifically not addressed in this AUC, there is no comment regarding recommendations for treatment or non-treatment for these patients:

- Rotator cuff re-tears/history of previous rotator cuff repair
- Partial-thickness tears or rotator cuff tendonitis/ rotator cuff bursitis
- Secondary diagnosis that the surgeon determines is more likely to be the relevant pathology creating pain such as:
  - Glenohumeral Arthrosis
  - Calcific tendinitis
  - Plexopathy, radiculopathy or muscle weakness from SSN nerve compression
  - Isolated clinically symptomatic AC joint arthritis

### **Disclaimer**

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## **INDICATIONS**

### **PATIENT INDICATIONS AND CLASSIFICATIONS**

#### **Tear Size**

1. C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon
2. C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction
3. C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm

#### **Presentation**

1. Acute (within approximately 2 months)
2. Acute on Chronic
3. Chronic

#### **Symptom Severity**

1. Mild
2. Moderate
3. Severe

	<b>Mild</b>	<b>Moderate</b>	<b>Severe</b>
<b>ADL</b>	Can perform with some pain at previous level	Painful, notes restrictions with certain ADL's	Painful with almost all ADL's
<b>Work/activities that require overhead motion or lifting away from body</b>	Can perform with some pain at previous level	Painful, cannot perform at previous level, requires restrictions	Painful, can't perform any labor with that arm can't lift arm/ pseudoparalysis
<b>Recreation/Hobbies/ Sports</b>	Can perform with some pain at previous level	Painful, cannot perform at previous level	Has to give up
<b>Sleep/Rest</b>	Only occasional disruption, largely good sleep, good rest	Affected significantly, needs medications to sleep, wakes up often, does not get rest as before	Sleep and rest are poor requires narcotics
<b>Pain at rest</b>	Absent	Absent or rare, not significant complaint	Present, can never get quite pain free or comfortable, needs narcotics
<b>Active Range of Motion</b>	Full Functional  Complete flexion arc/able to maintain full flexion	More than half  Ability to lift to 90	Half or less
<b>Weakness</b>	Mild	Moderate	Profound, Drop arm sign+

### **Identifiable Factors that Negatively Affect Healing or Outcome**

1. Present
2. Absent

The following factors may negatively affect healing or outcome in some individuals.

- Diabetes Mellitus – Poorly Controlled
- Higher BMI
- Osteoporosis
- History of Infection
- Advanced Age
- Smoking

- Multiple Corticosteroid Injections
- Immunosuppressive Drugs, Catabolites, or Prednisone
- Parkinson's Disease
- Worker's Compensation Claim
- Accident Litigation
- Substance Abuse
- Psychiatric Disorder
- Other medical comorbidities

**Atrophy/Fatty Infiltration**

1. G 0-2
2. G 3-4

**Response to Previous Treatment**

1. No response
2. No prior treatment

## **TREATMENTS**

1. Physical therapy (formal or supervised home-based)
2. Repair
3. Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)
4. Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.
5. Arthroplasty

## **IV. RESULTS OF APPROPRIATENESS RATINGS**

For a user-friendly version of these appropriate use criteria, please access our AUC web-based application at [www.orthoguidelines.org/auc](http://www.orthoguidelines.org/auc). The OrthoGuidelines native app can also be downloaded via the Apple or Google Play stores.

**Figure 5. Web-Based AUC Application Screenshot**

Indication Profile	Procedure Recommendations																														
<p><b>Tear Size</b> <span style="float: right;">i</span></p> <p><input checked="" type="radio"/> C1-C2: Small or Moderate complete tear, usually pinhole sized or &lt;3cm in any direction of only one tendon</p> <p><input type="radio"/> C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction</p> <p><input type="radio"/> C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm</p>	<table border="1"> <tr> <td style="text-align: center;"></td> <td><b>Physical therapy (formal or supervised home-based)</b></td> <td style="text-align: right;">+</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">8</td> </tr> <tr> <td style="text-align: center;"></td> <td><b>Repair</b></td> <td style="text-align: right;">+</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">8</td> </tr> <tr> <td style="text-align: center;"></td> <td><b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoasty/debridement)</b></td> <td style="text-align: right;">-</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">5</td> </tr> <tr> <td style="text-align: center;"></td> <td><b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b></td> <td style="text-align: right;">+</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">2</td> </tr> <tr> <td style="text-align: center;"></td> <td><b>Arthroplasty</b></td> <td style="text-align: right;">+</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">1</td> </tr> </table>		<b>Physical therapy (formal or supervised home-based)</b>	+			8		<b>Repair</b>	+			8		<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoasty/debridement)</b>	-			5		<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	+			2		<b>Arthroplasty</b>	+			1
	<b>Physical therapy (formal or supervised home-based)</b>	+																													
		8																													
	<b>Repair</b>	+																													
		8																													
	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoasty/debridement)</b>	-																													
		5																													
	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	+																													
		2																													
	<b>Arthroplasty</b>	+																													
		1																													
<p><b>Presentation</b></p> <p><input checked="" type="radio"/> Acute (within approximately 2 months)</p> <p><input type="radio"/> Acute on Chronic</p> <p><input type="radio"/> Chronic</p>																															
<p><b>Symptom Severity</b></p> <p><input checked="" type="radio"/> Mild</p> <p><input type="radio"/> Moderate</p> <p><input type="radio"/> Severe</p>																															
<p><b>Identifiable Factors that Negatively Affect Healing or Outcome</b></p> <p><input checked="" type="radio"/> Identifiable Factors that Negatively Affect Healing or Outcome Present</p> <p><input type="radio"/> No Identifiable Factors that Negatively Affect Healing or Outcome</p>																															
<p><b>Atrophy/Fatty Infiltration</b></p> <p><input checked="" type="radio"/> G 0-2</p> <p><input type="radio"/> G 3-4</p>																															
<p><b>Response to Previous Treatment</b></p> <p><input checked="" type="radio"/> No Response to Previous Treatment</p> <p><input type="radio"/> No prior treatment</p>																															
<p>Submit </p>	<p>E-mail Results    Print    </p>																														

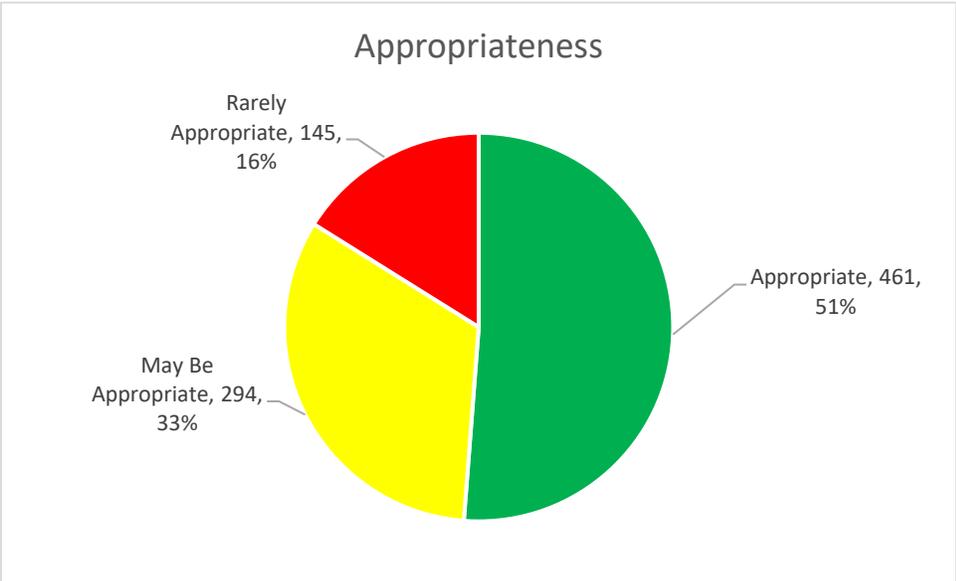
**Click Here to Access the AUC App!**

## **Results**

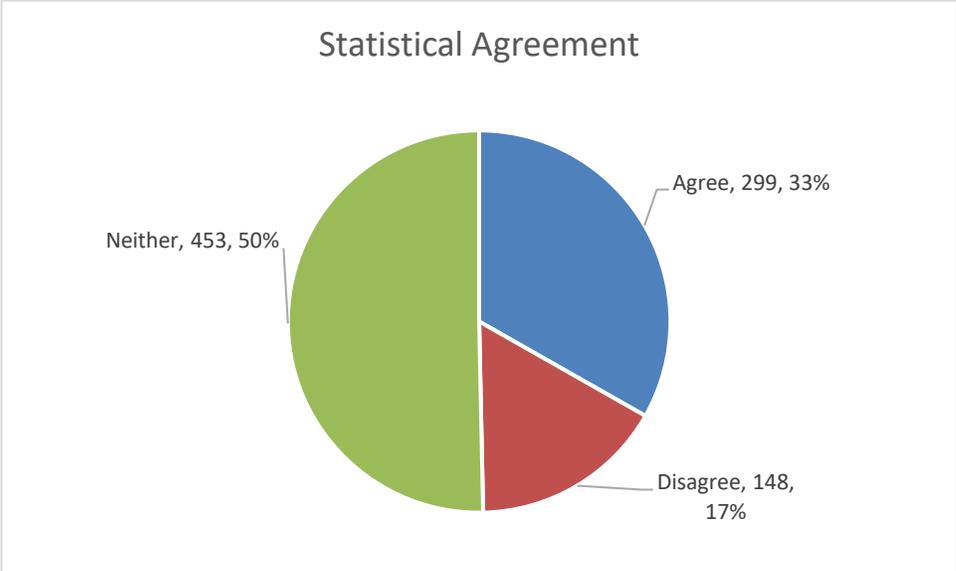
The following Appropriate Use Criteria tables contain the final appropriateness ratings assigned by the members of the voting panel. Patient characteristics are found under the column titled “Scenario”. The Appropriate Use Criteria for each patient scenario can be found within each of the treatment rows. These criteria are formatted by appropriateness, median rating, and + or - indicating agreement or disagreement amongst the voting panel, respectively.

Out of 900 total voting items, 461 (51%) voting items were rated as “Appropriate”, 294 (33%) voting items were rated as “May Be Appropriate”, and 145 (16%) voting items were rated as “Rarely Appropriate” (Figure 6). Additionally, the voting panel members were in statistical agreement on 299 (33%) voting items and were in statistical disagreement on 148 (17%) voting items (Figure 7).

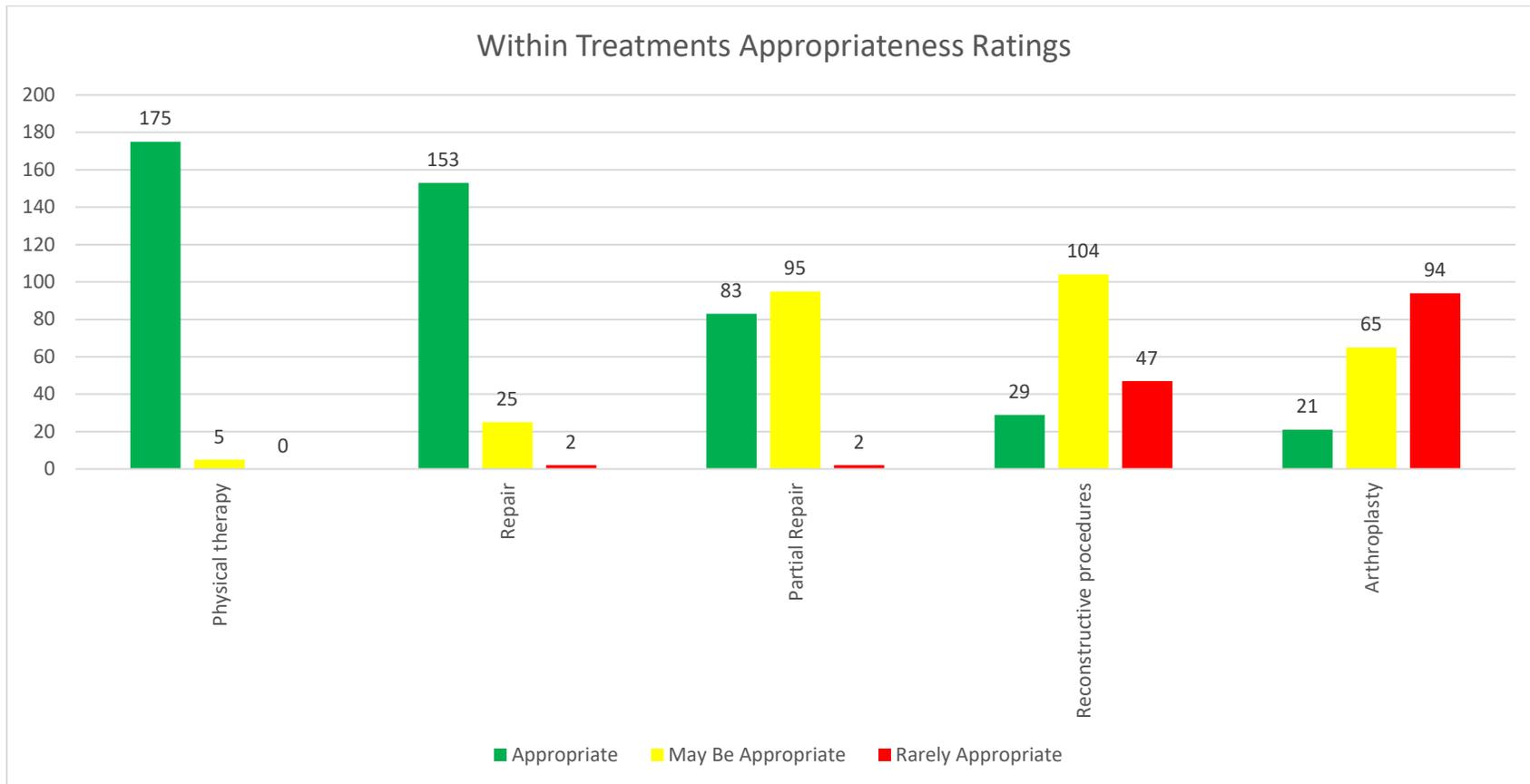
**FIGURE 6. BREAKDOWN OF APPROPRIATENESS RATINGS**



**FIGURE 7. BREAKDOWN OF AGREEMENT AMONGST VOTING PANEL**



**FIGURE 8. WITHIN TREATMENT APPROPRIATENESS RATINGS**



## APPROPRIATE USE CRITERIA FOR MANAGEMENT OF SURGICAL SITE INFECTIONS

### Interpreting the AUC tables:

- Each procedure contains the appropriateness (i.e. appropriate, may be appropriate, or rarely appropriate) for each patient scenario, followed by the median panel rating, and the panel’s agreement in parentheses.

Scenario	Patient Scenario	Physical therapy (formal or supervised home-based)	Repair	Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)	Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.	Arthroplasty
1	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)	Rarely Appropriate (1, +)
2	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Rarely Appropriate (3)	Rarely Appropriate (2, +)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
3	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	Rarely Appropriate (3)	Rarely Appropriate (2, +)	Rarely Appropriate (1, +)
4	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5)	Rarely Appropriate (2, +)	Rarely Appropriate (1, +)
5	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present;	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)	Rarely Appropriate (2, +)

Scenario	Patient Scenario	Physical therapy (formal or supervised home-based)	Repair	Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)	Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.	Arthroplasty
	G 0-2; No Response to Previous Treatment					
6	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
7	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5)	Rarely Appropriate (2, +)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
8	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)
9	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
10	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (4)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

Scenario	Patient Scenario	Physical therapy (formal or supervised home-based)	Repair	Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)	Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.	Arthroplasty
	Healing or Outcome Present; G 0-2; No prior treatment					
11	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)
12	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (4)	Rarely Appropriate (3, +)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
13	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
14	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
15	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
16	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (4)	Rarely Appropriate (2, +)
17	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
18	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (4)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
19	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)	Rarely Appropriate (2, +)
20	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
21	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
22	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
23	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)
24	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (9, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
25	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (6)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
26	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (4)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)
27	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
28	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)	Rarely Appropriate (2, +)
29	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
30	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
31	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
32	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
33	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
34	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5)	Rarely Appropriate (3, +)	Rarely Appropriate (2, +)
35	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (4)	Rarely Appropriate (2, +)
36	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
37	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
38	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
39	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
40	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
41	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
42	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (4)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
43	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)	Rarely Appropriate (2, +)
44	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (4)	Rarely Appropriate (2, +)
45	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
46	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
47	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)
48	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
49	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (1, +)
50	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3, +)	Rarely Appropriate (1, +)
51	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
52	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
53	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
54	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
55	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)
56	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (9, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (3)	Rarely Appropriate (2, +)
57	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
58	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (5, -)	Rarely Appropriate (3, +)	Rarely Appropriate (2, +)
59	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3, +)
60	C1-C2: Small or Moderate complete tear, usually pinhole sized or <3cm in any direction of only one tendon; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (4)	Rarely Appropriate (2)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
61	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	May Be Appropriate (5, -)	May Be Appropriate (5, -)	Rarely Appropriate (2)
62	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5)	May Be Appropriate (5)	Rarely Appropriate (2, +)
63	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
64	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (5)	May Be Appropriate (4)	Rarely Appropriate (2, +)
65	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	May Be Appropriate (6)	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	Rarely Appropriate (3)
66	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (6)	Rarely Appropriate (2)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
67	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (2, +)
68	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)
69	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	May Be Appropriate (6)	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
70	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (2)
71	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (2, +)
72	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
73	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (2)
74	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (7, +)	May Be Appropriate (6)	May Be Appropriate (5)	Rarely Appropriate (2, +)
75	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (7)	Appropriate (7)	Appropriate (7, +)	Appropriate (7)	Appropriate (7, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
76	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5)	May Be Appropriate (5)
77	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (2, +)
78	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (7, +)	May Be Appropriate (5)	May Be Appropriate (5)	Rarely Appropriate (2, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
79	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
80	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (6)	May Be Appropriate (5)	May Be Appropriate (5)
81	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
82	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (2)
83	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	Appropriate (7)	Appropriate (7)
84	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
85	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (2)
86	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)
87	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (7, +)	Appropriate (7)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
88	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5)
89	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)
90	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
91	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (7)	Appropriate (7)	Appropriate (7)	Appropriate (7)	Appropriate (7)
92	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
93	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
94	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	Rarely Appropriate (3)
95	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (7, +)	Appropriate (7)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)
96	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
97	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (3)
98	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (5)	Rarely Appropriate (2, +)
99	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
100	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5)	May Be Appropriate (5)
101	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (2)
102	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5)	Rarely Appropriate (2, +)
103	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect	Appropriate (8, +)	Appropriate (7)	Appropriate (7, +)	May Be Appropriate (6)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	Healing or Outcome; G 3-4; No Response to Previous Treatment					
104	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (4)
105	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	Rarely Appropriate (2)
106	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5)	Rarely Appropriate (3, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	Healing or Outcome Present; G 0-2; No prior treatment					
107	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8)	Appropriate (7)	Appropriate (7, +)	Appropriate (7)	May Be Appropriate (5, -)
108	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
109	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect	Appropriate (7)	Appropriate (8, +)	Appropriate (7, +)	May Be Appropriate (5)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	Healing or Outcome; G 0-2; No Response to Previous Treatment					
110	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	Rarely Appropriate (2, +)
111	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7, +)	Appropriate (7)	May Be Appropriate (5, -)
112	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect	Appropriate (9, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	Healing or Outcome; G 3-4; No prior treatment					
113	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5)
114	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	Rarely Appropriate (3)
115	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4;	Appropriate (7)	Appropriate (7)	Appropriate (7)	Appropriate (7)	Appropriate (7)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	No Response to Previous Treatment					
116	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5)
117	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (4)
118	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberopecty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
119	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (7)	Appropriate (8)	Appropriate (7)	Appropriate (7)	Appropriate (7)
120	C3: Large, complete tear with an entire tendon, usually 3-5 cm in any direction; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5)
121	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (4)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
122	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8)	May Be Appropriate (6)	May Be Appropriate (6)	May Be Appropriate (4)
123	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (5, -)
124	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
125	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)
126	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (6)	May Be Appropriate (5, -)
127	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2;	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
	No Response to Previous Treatment					
128	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (6)	May Be Appropriate (5, -)
129	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
130	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
131	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
132	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute (within approximately 2 months); Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
133	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (7, +)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5, -)
134	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5)	May Be Appropriate (5, -)
135	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	Appropriate (7)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
136	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5)	May Be Appropriate (4)
137	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8)	May Be Appropriate (5, -)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
138	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8)	May Be Appropriate (6)	May Be Appropriate (5)	Rarely Appropriate (3)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
139	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	May Be Appropriate (5, -)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (6)
140	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (6)	May Be Appropriate (5)	May Be Appropriate (4)
141	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
142	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
143	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (7)	Appropriate (7)	Appropriate (7, +)	Appropriate (7)	Appropriate (8, +)
144	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (6)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
145	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
146	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
147	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	May Be Appropriate (6)	May Be Appropriate (5, -)	Appropriate (8)	Appropriate (8, +)	Appropriate (7, +)

Scenario	Patient Scenario	Physical therapy (formal or supervised home-based)	Repair	Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)	Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.	Arthroplasty
148	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (9, +)	May Be Appropriate (5, -)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (6)
149	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8)	Appropriate (7)	Appropriate (7)	Appropriate (7)
150	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (9)	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (6)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
151	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	May Be Appropriate (6)	May Be Appropriate (5, -)	Appropriate (7, +)	Appropriate (7)	Appropriate (8, +)
152	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (6)
153	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
154	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
155	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (7)	May Be Appropriate (5, -)	Appropriate (7, +)	Appropriate (7)	Appropriate (8, +)
156	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Acute on Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberooplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
157	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (7, +)	Appropriate (8)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
158	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
159	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	May Be Appropriate (4)	Appropriate (7)	May Be Appropriate (5)	Appropriate (8)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
160	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8, +)	Rarely Appropriate (3)	May Be Appropriate (5)	May Be Appropriate (5)	May Be Appropriate (5)
161	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
162	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8, +)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
163	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8, +)	May Be Appropriate (5, -)	Appropriate (7)	May Be Appropriate (6)	May Be Appropriate (5)
164	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Mild Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8, +)	May Be Appropriate (4)	May Be Appropriate (5)	May Be Appropriate (5)	May Be Appropriate (5, -)
165	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (7, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
166	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)
167	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	Appropriate (8)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	Appropriate (8, +)
168	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8,+)	Rarely Appropriate (3)	May Be Appropriate (6)	May Be Appropriate (5, -)	Appropriate (7)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberooplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
169	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8)	Appropriate (7)	Appropriate (7)	May Be Appropriate (5, -)
170	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8, +)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)
171	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (8)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	Appropriate (8, +)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
172	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Moderate Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (9, +)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5, -)	Appropriate (7)
173	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8)	Appropriate (7)	Appropriate (7)	Appropriate (7)
174	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
175	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No Response to Previous Treatment	May Be Appropriate (6)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	Appropriate (8, +)
176	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; Identifiable Factors that Negatively Affect Healing or Outcome Present; G 3-4; No prior treatment	Appropriate (8)	May Be Appropriate (4)	Appropriate (7)	May Be Appropriate (5, -)	Appropriate (7)
177	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No Response to Previous Treatment	Appropriate (7)	Appropriate (8)	Appropriate (7)	May Be Appropriate (5, -)	May Be Appropriate (5, -)

<b>Scenario</b>	<b>Patient Scenario</b>	<b>Physical therapy (formal or supervised home-based)</b>	<b>Repair</b>	<b>Partial Repair (with or without biceps tenotomy/tenodesis/tuberoplasty/debridement)</b>	<b>Reconstructive procedures (+/- repair) i.e., Superior Capsular Reconstruction, tendon transfer, etc.</b>	<b>Arthroplasty</b>
178	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 0-2; No prior treatment	Appropriate (8)	Appropriate (8)	May Be Appropriate (6)	Appropriate (7)	May Be Appropriate (5, -)
179	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No Response to Previous Treatment	Appropriate (7)	May Be Appropriate (5, -)	Appropriate (7)	Appropriate (7)	Appropriate (8, +)
180	C4: Massive rotator cuff tear involving two or more rotator cuff tendons, usually described as greater than 5 cm; Chronic; Severe Symptom Severity; No Identifiable Factors that Negatively Affect Healing or Outcome; G 3-4; No prior treatment	Appropriate (8)	May Be Appropriate (5, -)	May Be Appropriate (6)	May Be Appropriate (5)	Appropriate (7)

## V. APPENDICES

### APPENDIX A. DOCUMENTATION OF APPROVAL

#### AAOS BODIES THAT APPROVED THIS APPROPRIATE USE CRITERIA

**Evidence-Based Quality and Value Committee: Approved on July 16, 2020**

The AAOS Committee on Evidence Based Quality and Value consists of 19 AAOS members. The overall purpose of this committee is to plan, organize, direct, and evaluate initiatives related to Clinical Practice Guidelines and Appropriate Use Criteria.

**Council on Research and Quality: Approved on July 27, 2020**

To enhance the mission of the AAOS, the Council on Research and Quality promotes the most ethically and scientifically sound basic, clinical, and translational research possible to ensure the future care for patients with musculoskeletal disorders. The Council also serves as the primary resource to educate its members, the public, and public policy makers regarding evidenced-based medical practice, orthopaedic devices and biologics regulatory pathways and standards development, patient safety, occupational health, technology assessment, and other related areas of importance.

**Board of Directors: Approved on September 12, 2020**

The 16 member AAOS Board of Directors manages the affairs of the AAOS, sets policy, and determines and continually reassesses the Strategic Plan.

## APPENDIX B. DISCLOSURE INFORMATION

### ROTATOR CUFF PATHOLOGY WRITING PANEL MEMBER DISCLOSURES

**John M Tokish, MD, FAAOS** Submitted on: 08/29/2019

Arthrex, Inc: IP royalties (\$0)

Arthrex, Inc: Paid presenter or speaker (\$0) Number of Presentations: 0

Arthrex, Inc: Paid consultant (\$0)

Arthroscopy Association of North America: Board or committee member (\$0)

DePuy, A Johnson & Johnson Company: Paid consultant (\$0)

Journal of Shoulder and Elbow Surgery: Publishing royalties, financial or material support (\$0)

Journal of Shoulder and Elbow Surgery: Editorial or governing board (\$0) associate editor (Self)

Mitek: Paid presenter or speaker (\$0) Number of Presentations: 0

Mitek: Paid consultant (\$0)

Orthopedics Today: Editorial or governing board (\$0)

**W Benjamin Kibler, MD** Submitted on: 05/01/2019

Aligned: Unpaid consultant

Aligned: Stock or stock Options Number of Shares: 0

American Orthopaedic Society for Sports Medicine: Board or committee member (\$0)

American Shoulder and Elbow Surgeons: Board or committee member (\$0)

Springer: Publishing royalties, financial or material support (\$0)

**Albert Lin, MD, FAAOS** Submitted on: 10/16/2019

AAOS: Board or committee member (\$0)

American Orthopaedic Society for Sports Medicine: Board or committee member (\$0)

American Shoulder and Elbow Surgeons: Board or committee member (\$0)

Annals in Joint: Editorial or governing board (\$0)

Arthrex, Inc: Paid consultant (\$0)

Frontiers in Orthopaedic Surgery: Editorial or governing board (\$0)

Knee Surgery, Sports Traumatology, Arthroscopy: Editorial or governing board (\$0)

Tornier: Paid consultant (\$0)

**Paula M Ludewig, PhD** (This individual reported nothing to disclose); Submitted on: 10/15/2019

**Surena Namdari, MD, MSc** Submitted on: 09/15/2019

Aevumed: IP royalties (\$0) none (Self)

Aevumed: Stock or stock Options Number of Shares: 0 (Self)

Arthrex, Inc: Research support (\$0)

Bone & Joint 360: Editorial or governing board (\$0)

DePuy, A Johnson & Johnson Company: Research support (\$0) n/a(Self)

DJ Orthopaedics: IP royalties (\$0)

DJ Orthopaedics: Paid presenter or speaker (\$0) Number of Presentations: 0

DJ Orthopaedics: Paid consultant (\$0)

DJ Orthopaedics: Research support (\$0)

Flexion Therapeutics: Paid consultant (\$0)

Force Therapeutics: Stock or stock Options Number of Shares: 0

Integra: Research support (\$0)

MD Live: Stock or stock Options Number of Shares: 0

MD Valuate: Stock or stock Options Number of Shares: 0

Miami device solutions: IP royalties (\$0)  
Miami device solutions: Paid presenter or speaker (\$0) Number of Presentations: 0  
Miami Device Solutions: Paid consultant (\$0)  
Orthophor: Stock or stock Options Number of Shares: 0 (Self)  
Parvizi Surgical Innovations: Stock or stock Options Number of Shares: 0  
Philadelphia Orthopaedic Society: Board or committee member (\$0)  
RubiconMD: Stock or stock Options Number of Shares: 0  
Saunders/Mosby-Elsevier: Publishing royalties, financial or material support (\$0)  
SLACK Incorporated: Publishing royalties, financial or material support (\$0) (Self)  
Synthes: Paid consultant (\$0)  
Tangen: Stock or stock Options Number of Shares: 0 n/a (Self)  
Wolters Kluwer Health - Lippincott Williams & Wilkins: Publishing royalties, financial or material support (\$0) (Self)  
Wright Medical Technology, Inc.: Research support (\$0) n/a (Self)  
Zimmer: Research support (\$0)

**Brian J Galinat, MD, MBA, FAAOS** Submitted on: 09/30/2019

Delaware Society of Orthopaedic Surgeons: Board or committee member (\$0)

Siddharth B Joglekar, MD (This individual reported nothing to disclose); Submitted on: 10/03/2019

**Christopher James Roach, MD, FAAOS** Submitted on: 10/03/2019

AAOS: Board or committee member (\$0)

American Orthopaedic Society for Sports Medicine: Board or committee member (\$0)

**Robert L Waltrip, MD, FAAOS** (This individual reported nothing to disclose); Submitted on: 09/23/2019

## ROTATOR CUFF PATHOLOGY VOTING PANEL MEMBER DISCLOSURES

**Derek F Papp, MD, FAAOS** Submitted on: 07/08/2019

Arthroscopy Association of North America: Board or committee member (\$0)

**Shawn F Kane** Submitted on: 12/16/2019

American College of Sports Medicine: Publishing royalties, financial or material support (\$10,000)

Current Sports Medicine Reports (Self)

**R. Amadeus Mason, MD** (Dunwoody, GA)

(This individual reported nothing to disclose); Submitted on: 12/19/2019

**Michael Cusick, MD, FAAOS** (This individual reported nothing to disclose); Submitted on: 10/06/2014

**Sara Louise Edwards, MD, FAAOS** (This individual reported nothing to disclose); Submitted on: 01/16/2020

**Charles A Thigpen, PhD, PT, ATC** Submitted on: 01/03/2020

Breg: Paid consultant (\$2,500) brace consultant (Self)

Players Health: Stock or stock Options Number of Shares: 30,000 N/A (Self)

Trex: Stock or stock Options Number of Shares: 30,000 N/A (Self)

**Kent Jason Lowry, MD, FAAOS** Submitted on: 02/02/2020

AAOS: Board or committee member (\$0)

ASTM: Board or committee member (\$0)

**Henry Bone Ellis Jr, MD, FAAOS** Submitted on: 02/03/2020

AAOS: Board or committee member (\$0) Evidence Based, Quality, and Value (Self)

Pediatric Orthopaedic Society of North America: Board or committee member (\$0)

Pediatric Research in Sports Medicine: Board or committee member (\$0)

**Gautam P Yagnik, MD, FAAOS** Submitted on: 03/02/2020

Arthrex, Inc: Paid presenter or speaker (\$9,240) Number of Presentations: 3 Presentations: Video, Pump & Shavers

Teaching, Future Meeting Faculty (Self)(Self)

Arthrex, Inc: Paid consultant; Paid consultant (\$5,040) Distal Clavicle Fractures, Patch Grafts (Self)

**Michael Edward Angeline, MD, FAAOS** Submitted on: 03/27/2020

AAOS: Board or committee member (\$0)

American Orthopaedic Society for Sports Medicine: Board or committee member (\$0)

American Shoulder and Elbow Surgeons: Board or committee member (\$0)

Baxter International Inc.: Stock or stock Options Number of Shares: 0

The American Journal of Sports Medicine: Editorial or governing board (\$0)

## APPENDIX C. REFERENCES

- (1) American Academy of Orthopaedic Surgeons. The Burden of Musculoskeletal Diseases in the United States. American Academy of Orthopaedic Surgeons; 2008.
- (2) Fitch K, Bernstein SJ, Aguilar MD et al. *The RAND/UCLA Appropriateness Method User's Manual*. Santa Monica, CA: RAND Corporation; 2001.
- (3) American Academy of Orthopaedic Surgeons. Clinical Practice Guideline on the Management of Rotator Cuff Injuries. <https://www.aaos.org/quality/quality-programs/upper-extremity-programs/rotator-cuff-injuries/>. Published March 11, 2019.
- (4) Sher JS, Uribe JW, Posada A, et al. Abnormal findings on magnetic resonance images of asymptomatic shoulders. *J Bone Joint Surg [Am]* 1995; 77-A: 10–15.
- (5) Tempelhof S, Rupp S and Seil R. Age-related prevalence of rotator cuff tears in asymptomatic shoulders. *J Shoulder Elbow Surg* 1999; 8: 296–299.
- (6) Lohr JF and Uthoff HK. Epidemiology and pathophysiology of rotator cuff tears. *Orthopade* 2007; 36: 788–95. <http://dx.doi.org/10.1007/s00132-007-1146-8>.
- (7) OrthoInfo, Rotator Cuff. American Academy of Orthopaedic Surgeons - 2007 - <https://orthoinfo.aaos.org/en/diseases--conditions/rotator-cuff-tears/>

**EXTERNAL ENDORSEMENTS**



September 28, 2020

Kaitlyn S. Sevarino, MBA  
Director  
Department of Clinical Quality and Value  
American Academy of Orthopaedic Surgeons  
9400 West Higgins Road  
Rosemont, Illinois 60018

Dear Ms. Sevarino,

The Arthroscopy Association of North America has voted to endorse the AAOS Management of Rotator Cuff Pathology Appropriate Use Criteria. This endorsement implies permission for the AAOS to officially list our organization as an endorser of this appropriate use criteria and reprint our logo in the introductory section of the appropriate use criteria document.

Sincerely,

*Eric Stiefel*

Eric Stiefel, MD  
Advocacy Committee Chair

9400 W Higgins Road, Suite 200  
Rosemont, IL 60018

T 847.292.2262  
F 847.292.2268  
[aana.org](http://aana.org)



## American Shoulder and Elbow Surgeons

October 22, 2020

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*Executive Director*

Kaitlyn S. Sevarino, MBA  
Director  
Department of Clinical Quality and Value

Dear Ms. Sevarino,

The American Shoulder and Elbow Surgeons (ASES) has voted to endorse the AAOS Management of Rotator Cuff Pathology Appropriate Use Criteria. This endorsement implies permission for the AAOS to officially list our organization as an endorser of this appropriate use criteria and reprint our logo in the introductory section of the appropriate use criteria document.

Sincerely,

Anna Quintanilla, MA, CAE  
Executive Director

9400 W. Higgins Road, Suite 500, Rosemont, Illinois 60018-4976  
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**Mission Statement:** The American College of Sports Medicine advances and integrates scientific research to provide educational and practical applications of exercise science and sports medicine.

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December 1, 2020

Dear Kaitlyn,

ACSM is pleased to endorse the AAOS statement on the *Management of Rotator Cuff Pathology Appropriate Use Criteria*. We appreciate the opportunity to be involved with the development of this manuscript, and now the endorsement. You will find the ACSM logo attached to this email.

Best,  
Lynette L. Craft, PhD, FACSM  
Chief Science Officer



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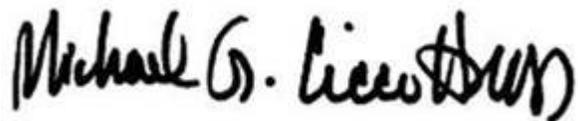
November 6, 2020

Kaitlyn S. Sevarino, MBA  
Senior Manager, Quality and Value Implementation  
Department of Research, Quality, & Scientific Affairs

Dear Ms. Sevarino,

The Board of Directors of the American Orthopaedic Society for Sports Medicine (AOSSM) has voted to endorse the AAOS Management of Rotator Cuff Pathology Appropriate Use Criteria. This endorsement implies permission for the AAOS to officially list our organization as an endorser of these criteria and reprint our logo in the introductory section of the appropriate use criteria document.

Best regards,



Michael G. Ciccotti, M.D.  
AOSSM President

cc: Kevin Boyer, AOSSM Director of Research



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