

The Weill Cornell Shoulder Pain Appropriate Use Criteria AUC addresses nineteen clinical conditions common to Shoulder Pain, associated with injuries, acute-chronic inflammation of the shoulder joint, tendons, surrounding ligaments, peri-articular structure, or injury to the rotator cuff and subacromial bursa.

The AUC makes recommendations to optimize diagnostic effectiveness.

Common Clinical Conditions – Shoulder Pain	
0	Not Shoulder Pain
1	Adhesive Capsulitis Known or Suspected
2	Arthroplasty Loosening Known or Suspected - Status Post
3	Avascular Necrosis Known or Suspected
4	Bicipital Tendon Injury Known or Suspected
5	Brachial Plexopathy Known or Suspected
6	Bursitis Known or Suspected
7	Neoplasm Known or Suspected
8	Cervical Radiculopathy, No Rotator Cuff Injury
9	Glenoid Labral Tear Known or Suspected
10	Heterotopic Bone Known or Suspected
11	Impingement Known or Suspected
12	Infection Known or Suspected
13	Inflammatory Arthritis Known or Suspected
14	Mass Known or Suspected
15	Osteoarthritis Known or Suspected, No Rotator Cuff Injury
16	Post-Trauma Pain, Fracture Known or Suspected
17	Pre-Operative Planning, Known Fracture
18	Rotator Cuff Injury Known or Suspected
19	Shoulder Pain without Trauma

The Shoulder Pain AUC is activated when a user orders one of the following eight Imaging Procedures.

Imaging Procedures	
1	CT Arthrogram Shoulder
2	CT Shoulder with Contrast
3	CT Shoulder without Contrast
4	CT Shoulder with and without Contrast
5	MR Shoulder with Contrast
6	MR Shoulder without Contrast
7	MR Shoulder with and without Contrast
8	MR Arthrogram Shoulder

The Shoulder Pain AUC recommends from the following fourteen Imaging Procedures based on clinical conditions.

Recommended Imaging Procedures	
1	XR Shoulder
2	US Shoulder
3	CT Arthrogram Shoulder
3	CT Shoulder with Contrast
4	CT Shoulder without Contrast
5	CT Shoulder with and without Contrast
6	MR Shoulder with Contrast
7	MR Shoulder with Contrast
8	MR Shoulder without Contrast
9	MR Shoulder with and without Contrast
10	MR Arthrogram Shoulder
11	MR Cervical Spine without Contrast
12	CT Cervical Spine without Contrast
13	NM Bone Scan
14	MR Brachial Plexus without Contrast

Logic Tables

The following Clinical Condition Logic Tables provide the Shoulder Pain AUC logic for each clinical condition. The logic includes priors, contraindications, metal reduction and advanced US techniques where applicable.

Key

Value	Score
Blank	No Score Assigned
0	AUC Not Applicable – Allows User to Proceed with Original Order
1	Inappropriate
2	Contact Radiology
3	Appropriate
4	Appropriate Preferred

Advice Text

The Advice Text provided in each condition is for Ordering Provider information and education purposes.

Condition 0 – Not Shoulder Pain AUC Logic Activated, AUC Not Applicable

Condition	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo
Not shoulder pain	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Condition 0 - Advice Text

Not covered by guidelines.

Condition 1 - Adhesive Capsulitis Known or Suspected

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Adhesive Capsulitis		1	1	1	1	1	1	1	4	1	1	1	1	1	1	1-8	a
Adhesive Capsulitis	MR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1-8	b

Condition 1 - Advice Text

a	MR without contrast recommended for evaluation of adhesive capsulitis.
b	Please call radiology. Patients with adhesive capsulitis with contraindication to MR should be reviewed by a radiologist.

Condition 2 - Arthroplasty Loosening Known or Suspected - Status Post

Condition	Priors	Metal Reduction Techniques Available?	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Arthroplasty, Loosening Known or Suspected - S/P	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	9-13	a
Arthroplasty, Loosening Known or Suspected - S/P	XR	Yes	1	1	1	1	4	1	1	4	1	1	1	1	1	1	12-16	b
Arthroplasty, Loosening Known or Suspected - S/P	XR	No	1	1	1	1	4	1	1	1	1	1	1	1	1	1	12-14	c

Condition 2 - Advice Text

a	X-ray recommended for initial evaluation of suspected loosening of artificial joints or hardware failure.
b	CT without contrast or MR without contrast (if metal-reduction techniques are available) recommended after X-rays for follow up evaluation of suspected loosening of artificial joints or hardware failure.
c	CT without contrast recommended after X-rays for follow up evaluation of suspected loosening of artificial joints or hardware failure.

Condition 3 – Avascular Necrosis Known or Suspected

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Avascular Necrosis Known or Suspected	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	17	a
Avascular Necrosis Known or Suspected	XR		1	1	1	1	1	1	1	4	1	1	1	1	1	1	11, 18, 19	b
Avascular Necrosis Known or Suspected	XR	MR	1	1	1	1	1	1	1	1	1	1	1	1	4	1	18	c

Condition 3 - Advice Text

a	X-ray recommended for initial evaluation of suspected avascular necrosis.
b	MR without contrast recommended after X-rays for follow up evaluation of suspected avascular necrosis.
c	Bone scan recommended after X-rays for follow-up evaluation of suspected avascular necrosis in patients with contraindication to MR.

Condition 4 – Bicipital Tendon Injury Known or Suspected

Condition	US Expertise Available?	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Bicipital Tendon Known or Suspected	Yes		1	4	3	1	1	1	1	4	1	1	1	1	1	1	20-30	a
Bicipital Tendon Known or Suspected	Yes	MR	1	4	3	1	1	1	1	1	1	1	1	1	1	1	21, 22, 24, 26-30	b
Bicipital Tendon Known or Suspected	No		1	1	3	1	1	1	1	4	1	1	1	1	1	1	20-23, 25, 30	c
Bicipital Tendon Known or Suspected	No	MR	1	1	4	1	1	1	1	1	1	1	1	1	1	1	21, 22, 30, 31	d

Condition 4 - Advice Text

a	MR without contrast or advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
b	Advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.
c	MR without contrast is recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
d	CT Arthrogram shoulder recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.

Condition 5 – Brachial Plexopathy Known or Suspected

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Brachial Plexopathy Known or Suspected		1	1	1	1	1	1	1	1	1	1	1	1	1	4	32-41	a
Brachial Plexopathy Known or Suspected	MR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	32-41	b

Condition 5 - Advice Text

a	MR brachial plexus without contrast recommended for suspected brachial plexopathy.
b	Please call radiology. Patients with suspected brachial plexopathy with contraindication to MR should be reviewed with a radiologist.

Condition 6 – Bursitis Known or Suspected

Condition	US Expertise Available?	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Bursitis Known or Suspected	Yes		1	4	3	1	1	1	1	4	1	1	1	1	1	1	42, 43	a
Bursitis Known or Suspected	Yes	MR	1	4	3	1	1	1	1	1	1	1	1	1	1	1	43	b
Bursitis Known or Suspected	No		1	1	3	1	1	1	1	4	1	1	1	1	1	1	42	c
Bursitis Known or Suspected	No	MR	1	1	4	1	1	1	1	1	1	1	1	1	1	1	42	d

Condition 6 - Advice Text

a	MR without contrast or advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
b	Advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.
c	MR without contrast is recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
d	CT Arthrogram shoulder recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.

Condition 7 – Neoplasm Known or Suspected

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Neoplasm Known or Suspected	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	44-49	a
Neoplasm Known or Suspected	XR		1	1	1	1	3	1	1	3	4	1	1	1	1	1	48-54	b
Neoplasm Known or Suspected	XR	GAD	1	1	1	3	3	1	1	4	1	1	1	1	1	1	48, 49, 52-53	c
Neoplasm Known or Suspected	XR	MR	1	1	1	3	4	1	1	1	1	1	1	1	1	1	48, 49, 52	d
Neoplasm Known or Suspected	XR	GAD IOD	1	1	1	1	3	1	1	4	1	1	1	1	1	1	48, 49, 52-53	e
Neoplasm Known or Suspected	XR	MR IOD	1	1	1	1	3	1	1	1	1	1	1	1	1	1	48, 49, 52	f

Condition 7 - Advice Text

a	Shoulder radiographs preferred for initial exam of suspected infection, cancer, or masses.
b	MR shoulder with and without contrast preferred for suspected infection, cancer, or masses.
c	MR shoulder without contrast preferred for suspected infection, cancer, or masses in patients with contraindication to gadolinium.
d	CT shoulder (without contrast OR with contrast) preferred for suspected infection, cancer or masses in patients with contraindication to MR.
e	MR shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindication to gadolinium.
f	CT shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindications to MR and iodinated contrast.

Condition 8 – Cervical Radiculopathy, No Rotator Cuff Injury

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Cervical Radiculopathy No Rotator Cuff Injury		1	1	1	1	1	1	1	1	1	1	4	1	1	1	54	a
Cervical Radiculopathy No Rotator Cuff Injury	MR	1	1	1	1	1	1	1	1	1	1	1	4	1	1	54	b

Condition 9 - Advice Text

a	MR C-spine without contrast recommended for evaluation of cervical radiculopathy.
b	CT C-spine without contrast recommended for evaluation of cervical radiculopathy in patients with contraindication to MR.

Condition 9 – Glenoid Labral Tear Known or Suspected

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Glenoid Labral Tear		1	1	3	1	1	1	1	4	1	4	1	1	1	1	55-63	a
Glenoid Labral Tear	GAD	1	1	3	1	1	1	1	4	1	1	1	1	1	1	55, 56, 59, 60	b
Glenoid Labral Tear	MR	1	1	4	1	1	1	1	1	1	1	1	1	1	1	55	c

Condition 9 - Advice Text

a	MR shoulder without contrast or MR Arthrogram shoulder preferred for suspected glenoid labral tear.
b	MR shoulder without contrast preferred for suspected glenoid labral tear in patients with contraindication to gadolinium.
c	CT Arthrogram shoulder preferred for suspected glenoid labral tear in patients with contraindication to MR.

Condition 10 – Heterotopic Bone Known or Suspected

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Heterotopic Bone		1	1	1	1	4	1	1	4	1	1	1	1	1	1	64-66	a
Heterotopic Bone	MR	1	1	1	1	4	1	1	1	1	1	1	1	1	1	66	b

Condition 10 - Advice Text

a	CT without contrast or MR without contrast recommended for the evaluation of heterotopic bone.
b	CT without contrast recommended for the evaluation of heterotopic bone in patients with contraindication to MR.

Condition 11 – Impingement Known or Suspected

Condition	US Expertise Available?	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Impingement Known or Suspected	Yes		1	4	3	1	1	1	1	4	1	1	1	1	1	1	67-70	a
Impingement Known or Suspected	Yes	MR	1	4	3	1	1	1	1	1	1	1	1	1	1	1	68-70	b
Impingement Known or Suspected	No		1	1	3	1	1	1	1	4	1	1	1	1	1	1	67, 70	c
Impingement Known or Suspected	No	MR	1	1	4	1	1	1	1	1	1	1	1	1	1	1	67, 70	d

Condition 11 - Advice Text

a	MR without contrast or advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
b	Advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.
c	MR without contrast is recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
d	CT Arthrogram shoulder recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.

Condition 12 – Infection Known or Suspected

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Infection Known or Suspected	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	71	a
Infection Known or Suspected	XR		1	1	1	1	3	1	1	3	4	1	1	1	1	1	71-75	b
Infection Known or Suspected	XR	GAD	1	1	1	3	3	1	1	4	1	1	1	1	1	1	71, 72, 74	c
Infection Known or Suspected	XR	MR	1	1	1	3	4	1	1	1	1	1	1	1	1	1	71, 76	d
Infection Known or Suspected	XR	GAD IOD	1	1	1	1	3	1	1	4	1	1	1	1	1	1	71, 72, 74	e
Infection Known or Suspected	XR	MR IOD	1	1	1	1	3	1	1	1	1	1	1	1	1	1	71, 76	f

Condition 12 - Advice Text

a	Shoulder radiographs preferred for initial exam of suspected infection, cancer, or masses.
b	MR shoulder with and without contrast preferred for suspected infection, cancer, or masses.
c	MR shoulder without contrast preferred for suspected infection, cancer, or masses in patients with contraindication to gadolinium.
d	CT shoulder (without contrast OR with contrast) preferred for suspected infection, cancer or masses in patients with contraindication to MR.
e	MR shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindication to gadolinium.
f	CT shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindications to MR and iodinated contrast.

Condition 13 – Inflammatory Arthritis Known or Suspected

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Inflammatory Arthritis		1	1	1	1	1	1	1	4	3	1	1	1	1	1	77-81	a
Inflammatory Arthritis	GAD	1	1	1	1	1	1	1	4	1	1	1	1	1	1	77-79, 81	b
Inflammatory Arthritis	MR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	77-81	c

Condition 13 - Advice Text

a	MR without contrast recommended for evaluation of inflammatory arthritis.
b	MR without contrast recommended for evaluation of inflammatory arthritis.
c	Please call radiology. Patients with inflammatory arthritis with contraindication to MR should be reviewed by a radiologist.

Condition 14 – Mass Known or Suspected

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Mass Known or Suspected	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	66, 82, 83	a
Mass Known or Suspected	XR		1	1	1	1	3	1	1	3	4	1	1	1	1	1	51-53, 66, 82-91	b
Mass Known or Suspected	XR	GAD	1	1	1	3	3	1	1	4	1	1	1	1	1	1	52, 53, 66, 82, 83, 84, 85, 87-90	c
Mass Known or Suspected	XR	MR	1	1	1	3	4	1	1	1	1	1	1	1	1	1	52, 66, 84, 92, 93	d
Mass Known or Suspected	XR	GAD IOD	1	1	1	1	3	1	1	4	1	1	1	1	1	1	52, 53, 66, 83, 84, 85, 87-90	e
Mass Known or Suspected	XR	MR IOD	1	1	1	1	3	1	1	1	1	1	1	1	1	1	52, 66, 83, 92	f

Condition 14 - Advice Text

a	Shoulder radiographs preferred for initial exam of suspected infection, cancer, or masses.
b	MR shoulder with and without contrast preferred for suspected infection, cancer, or masses.
c	MR shoulder without contrast preferred for suspected infection, cancer, or masses in patients with contraindication to gadolinium.
d	CT shoulder (without contrast OR with contrast) preferred for suspected infection, cancer or masses in patients with contraindication to MR.
e	MR shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindication to gadolinium.
f	CT shoulder without contrast preferred for suspected infection, cancer or masses in patients with contraindications to MR and iodinated contrast.

Condition 15 - Osteoarthritis Known or Suspected, No Rotator Cuff Injury

Condition	Priors	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Osteoarthritis Known or Suspected No Rotator Cuff Injury	No XR	4	1	1	1	1	1	1	1	1	1	1	1	1	1	LBP	a
Osteoarthritis Known or Suspected No Rotator Cuff Injury	XR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	LBP	b

Condition 15 - Advice Text

a	X-ray recommended for initial evaluation of suspected osteoarthritis in absence rotator cuff pathology.
b	Advanced imaging for evaluation of suspected osteoarthritis in absence of rotator cuff pathology not recommended.

Condition 16 - Post-Trauma Pain, Fracture Known or Suspected

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Post-Trauma Pain Known or Suspected Fracture	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	94-96	a
Post-Trauma Pain Known or Suspected Fracture	XR		1	1	1	1	3	1	1	4	1	1	1	1	1	1	94-96	b
Post-Trauma Pain Known or Suspected Fracture	XR	MR	1	1	1	1	4	1	1	1	1	1	1	1	1	1	94-96	c

Condition 16 - Advice Text

a	X-ray recommended for initial evaluation of shoulder trauma.
b	MR without contrast recommended after X-rays for follow-up evaluation shoulder trauma.
c	CT without contrast recommended after X-rays for follow-up evaluation shoulder trauma in patients with contraindication to MR.

Condition 17 – Pre-Operative Planning, Known Fracture

Condition	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Pre-Op Planning Known Fracture		1	1	1	1	4	1	1	4	1	1	1	1	1	1	13, 97-101	a
Pre-Op Planning Known Fracture	MR	1	1	1	1	4	1	1	1	1	1	1	1	1	1	13, 97, 98, 101	b

Condition 17 - Advice Text

a	CT without contrast or MR without contrast recommended for pre-operative planning.
b	CT without contrast recommended for pre-operative planning in patients with contraindication to MR.

Condition 18 – Rotator Cuff Injury Known or Suspected

Condition	US Expertise Available?	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Rotator Cuff Injury	Yes		1	4	3	1	1	1	1	4	1	1	1	1	1	1	21, 22, 56, 67, 102-109	a
Rotator Cuff Injury	Yes	MR	1	4	3	1	1	1	1	1	1	1	1	1	1	1	21, 22, 56, 102, 103, 105-107, 109	b
Rotator Cuff Injury	No		1	1	3	1	1	1	1	4	1	1	1	1	1	1	21, 22, 56, 67, 102-106, 108, 109	c
Rotator Cuff Injury	No	MR	1	1	4	1	1	1	1	1	1	1	1	1	1	1	56	d

Condition 18 - Advice Text

a	MR without contrast or advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
b	Advanced ultrasound techniques are recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.
c	MR without contrast is recommended for suspected rotator cuff-subacromial bursitis-impingement disorders.
d	CT Arthrogram shoulder recommended for suspected rotator cuff-subacromial bursitis-impingement disorders in patients with contraindication to MR.

Condition 19 – Shoulder Pain without Trauma

Condition	Priors	Contraindications	XR	US	CT Arthrogram	CT w	CT wo	CT wwo	MR w	MR wo	MR wwo	MR Arthrogram	MR C-Spine wo	CT C-Spine wo	NM bone	MR Br Plexus wo	Reference	Advice Text
Shoulder Pain without Trauma	No XR		4	1	1	1	1	1	1	1	1	1	1	1	1	1	110, 111	a
Shoulder Pain without Trauma	XR		1	1	1	1	1	1	1	4	1	1	1	1	1	1	111, 112	b
Shoulder Pain without Trauma	XR	MR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	111-112	c

Condition 19 - Advice Text

a	X-ray recommended for initial evaluation for shoulder pain without trauma.
b	MR without contrast recommended as follow-up of X-rays for shoulder pain without trauma.
c	Please call radiology. Patients with shoulder pain without trauma with contraindication to MR should be reviewed by a radiologist.

Sources

The Shoulder Pain AUC has been developed by Weill Cornell Medicine utilizing the following published sources and Local Best Practice LBP.

No.	Source	Score
1	Chi AS, Kim J, Long SS, Morrison WB, Zoga AC. Non-contrast MRI diagnosis of adhesive capsulitis of the shoulder. Clin Imaging. 2017;44:46-50. https://pubmed.ncbi.nlm.nih.gov/28410478/	4
2	Suh CH, Yun SJ, Jin W, Lee SH, Park SY, Park JS, et al. Systematic review and meta-analysis of magnetic resonance imaging features for diagnosis of adhesive capsulitis of the shoulder. Eur Radiol. 2019;29:566-77. https://pubmed.ncbi.nlm.nih.gov/29978436/	5
3	Manton GL, Schweitzer ME, Weishaupt D, Karasick D. Utility of MR arthrography in the diagnosis of adhesive capsulitis. Skeletal Radiol. 2001;30:326-30. https://pubmed.ncbi.nlm.nih.gov/11465773/	4
4	Park S, Lee DH, Yoon SH, Lee HY, Kwack KS. Evaluation of Adhesive Capsulitis of the Shoulder With Fat-Suppressed T2-Weighted MRI: Association Between Clinical Features and MRI Findings. AJR Am J Roentgenol. 2016;207:135-41. https://pubmed.ncbi.nlm.nih.gov/27070051/	4
5	Emig EW, Schweitzer ME, Karasick D, Lubowitz J. Adhesive capsulitis of the shoulder: MR diagnosis. AJR Am J Roentgenol. 1995;164:1457-9. https://pubmed.ncbi.nlm.nih.gov/7754892/	4
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