

**American College of Radiology
ACR Appropriateness Criteria®**

Chronic Hip Pain

Variant 1: Chronic hip pain. Initial Imaging.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|----------------------------|--------------------------|------------------|---------------|------------------------|--------|--------|-------------------|---|---|---|---|---|---|---|----|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Radiography hip | Usually appropriate | Limited | ☼☼☼ 1-10 mSv | | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 15 (11567537) | 4 | | | | | | | | | | | | |
| | | 14 (12578996) | 4 | | | | | | | | | | | | |
| | | 13 (22915391) | 4 | | | | | | | | | | | | |
| | | 12 (12783223) | 3 | | | | | | | | | | | | |
| Radiography pelvis | Usually appropriate | Limited | ☼☼ 0.1-1mSv | ☼☼☼ 0.03-0.3 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 9 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 15 (11567537) | 4 | | | | | | | | | | | | |
| | | 14 (12578996) | 4 | | | | | | | | | | | | |
| | | 13 (22915391) | 4 | | | | | | | | | | | | |
| | | 12 (12783223) | 3 | | | | | | | | | | | | |
| CT arthrography hip | Usually not appropriate | Expert Consensus | ☼☼☼ 1-10 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT hip without IV contrast | Usually not appropriate | Expert Consensus | ☼☼☼ 1-10 mSv | | 1 | 1 | 12 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| MR arthrography hip | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | |
|--|-------------------------|------------------|----------------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| MRI hip without IV contrast | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 12 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| MRI hip without and with IV contrast | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 13 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Bone scan hip | Usually not appropriate | Expert Consensus | ⊛⊛⊛ 1-10 mSv | | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US hip | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 11 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| CT hip with IV contrast | Usually not appropriate | Expert Consensus | ⊛⊛⊛ 1-10 mSv | | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT hip without and with IV contrast | Usually not appropriate | Expert Consensus | ⊛⊛⊛ 1-10 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Expert Consensus | ⊛⊛⊛⊛ 10-30 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Image-guided anesthetic +/- corticosteroid injection hip joint or surrounding structures | Usually not appropriate | Expert Consensus | Varies | Varies | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Variant 2: Chronic hip pain. Suspect noninfectious extra-articular abnormality, such as tendonitis or bursitis. Radiographs negative or nondiagnostic. Next imaging study.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|-----------------------------|--------------------------|--------|---------------|---------------|--------|--------|-------------------|---|---|---|---|---|---|---|----|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MRI hip without IV contrast | Usually appropriate | Strong | ○ 0 mSv | ○ 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 12 |
| | | | References | Study Quality | | | | | | | | | | | |
| | | | 23 (22038311) | M | | | | | | | | | | | |
| | | | 24 (31243547) | 2 | | | | | | | | | | | |
| | | | 25 (16275576) | 4 | | | | | | | | | | | |
| | | | 26 (16275579) | 4 | | | | | | | | | | | |
| | | | 27 (16275574) | 4 | | | | | | | | | | | |

| | |
|---------------|---|
| 28 (16275584) | 4 |
| 29 (16275577) | 4 |
| 30 (19887296) | 4 |
| 31 (16275583) | 4 |
| 32 (16275580) | 4 |
| 33 (16275578) | 4 |
| 34 (16275571) | 4 |
| 35 (22403167) | 2 |
| 36 (33474984) | 4 |
| 37 (26102391) | 3 |

| | | | | | | | | | | | | | | | |
|--------|---------------------|---------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|
| US hip | Usually appropriate | Limited | 0 0 mSv | 0 0 mSv [ped] | 7 | 7 | 0 | 0 | 0 | 0 | 5 | 2 | 4 | 2 | 2 |
|--------|---------------------|---------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---------------|---------------|
| References | Study Quality |
| 23 (22038311) | M |
| 38 (8596860) | 4 |
| 39 (21136580) | 4 |
| 40 (18287424) | 4 |
| 41 (21381497) | 3 |

| | | | | | | | | | | | | | | | |
|--|--------------------|----------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|
| Image-guided anesthetic +/- corticosteroid injection hip joint or surrounding structures | May be appropriate | Moderate | Varies | Varies | 5 | 5 | 0 | 0 | 0 | 1 | 9 | 2 | 2 | 0 | 1 |
|--|--------------------|----------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---------------|---------------|
| References | Study Quality |
| 19 (16177412) | 4 |
| 20 (-3195116) | 4 |
| 21 (15494331) | 3 |
| 22 (23852899) | 2 |

| | | | | | | | | | | | | | | | |
|----------------------------|-------------------------|---------|--------------|--|---|---|---|---|---|---|---|---|---|---|---|
| CT hip without IV contrast | Usually not appropriate | Limited | ☼☼☼ 1-10 mSv | | 2 | 2 | 7 | 2 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |
|----------------------------|-------------------------|---------|--------------|--|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---------------|---------------|
| References | Study Quality |
| 18 (21298428) | 2 |

| | |
|---------------|---|
| 66 (20872764) | 2 |
| 65 (22933489) | 3 |
| 72 (31633993) | 2 |
| 71 (30048144) | 3 |
| 53 (31023206) | 3 |
| 52 (24656977) | 2 |
| 55 (24370140) | 2 |
| 54 (25022979) | 2 |
| 56 (20859632) | M |
| 18 (21298428) | 2 |
| 16 (20716653) | 3 |
| 59 (22878728) | 2 |
| 58 (15800516) | 2 |
| 57 (23073899) | 2 |
| 60 (19455497) | 3 |

| | | | | | | | | | | | | | | | |
|-----------------------------|---------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|
| MRI hip without IV contrast | Usually appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 5 |
|-----------------------------|---------------------|--------|---------|---------------|---|---|---|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 58 (15800516) | 2 |
| 68 (17114529) | 2 |
| 69 (16530635) | 4 |
| 70 (16530634) | 4 |
| 64 (22907475) | 2 |
| 65 (22933489) | 3 |
| 71 (30048144) | 3 |
| 72 (31633993) | 2 |
| 44 (23395032) | 4 |
| 45 (22985733) | 2 |
| 43 (16721954) | 4 |
| 42 (16211385) | 4 |
| 46 (22492172) | 4 |

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|--------------------------------------|-------------------------|------------------|---------------|---------------|---------------|---|----|---|---|---|---|---|---|---|---|--|--|--|
| | | | 20 (-3195116) | | 4 | | | | | | | | | | | | | |
| | | | 21 (15494331) | | 3 | | | | | | | | | | | | | |
| | | | 22 (23852899) | | 2 | | | | | | | | | | | | | |
| US hip | Usually not appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 3 | 3 | 4 | 3 | 2 | 2 | 3 | 0 | 1 | 0 | 0 | | | |
| | | | References | | Study Quality | | | | | | | | | | | | | |
| | | | 17 (24071389) | | 2 | | | | | | | | | | | | | |
| | | | 41 (21381497) | | 3 | | | | | | | | | | | | | |
| | | | 39 (21136580) | | 4 | | | | | | | | | | | | | |
| | | | 73 (27405494) | | 2 | | | | | | | | | | | | | |
| MRI hip without and with IV contrast | Usually not appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 1 | 1 | 8 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | | References | | Study Quality | | | | | | | | | | | | | |
| | | | 34 (16275571) | | 4 | | | | | | | | | | | | | |
| | | | 61 (8657921) | | 3 | | | | | | | | | | | | | |
| | | | 62 (8451409) | | 4 | | | | | | | | | | | | | |
| | | | 63 (12606867) | | 4 | | | | | | | | | | | | | |
| | | | 64 (22907475) | | 2 | | | | | | | | | | | | | |
| | | | 65 (22933489) | | 3 | | | | | | | | | | | | | |
| | | | 66 (20872764) | | 2 | | | | | | | | | | | | | |
| | | | 67 (21048174) | | 2 | | | | | | | | | | | | | |
| Bone scan hip | Usually not appropriate | Expert Consensus | ☼☼☼ 1-10 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| CT hip with IV contrast | Usually not appropriate | Limited | ☼☼☼ 1-10 mSv | | 1 | 1 | 12 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | | | |
| | | | References | | Study Quality | | | | | | | | | | | | | |
| | | | 42 (16211385) | | 4 | | | | | | | | | | | | | |
| | | | 43 (16721954) | | 4 | | | | | | | | | | | | | |
| | | | 44 (23395032) | | 4 | | | | | | | | | | | | | |
| CT hip without and with IV contrast | Usually not appropriate | Limited | ☼☼☼ 1-10 mSv | | 1 | 1 | 12 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

| References | Study Quality |
|---------------|---------------|
| 42 (16211385) | 4 |
| 43 (16721954) | 4 |
| 44 (23395032) | 4 |

| | | | | | | | | | | | | | | | |
|---|-------------------------|---------|----------------|--|---|---|----|---|---|---|---|---|---|---|---|
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Limited | ☢☢☢☢ 10-30 mSv | | 1 | 1 | 12 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------------------|---------|----------------|--|---|---|----|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 50 (26745810) | 4 |
| 51 (31470763) | 4 |

Variant 4: Chronic hip pain. Suspect labral tear. Radiographs negative or nondiagnostic. Next imaging study.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---------------------|--------------------------|--------|------------|---------------|--------|--------|-------------------|---|---|---|---|---|---|---|----|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MR arthrography hip | Usually appropriate | Strong | 0 0 mSv | 0 0 mSv [ped] | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 11 |

| References | Study Quality |
|---------------|---------------|
| 80 (19380568) | 3 |
| 79 (17712555) | 4 |
| 78 (11479747) | 4 |
| 77 (17383908) | 3 |
| 76 (10430132) | 2 |
| 75 (22865251) | 2 |
| 82 (16857978) | 2 |
| 81 (15972331) | 4 |
| 52 (24656977) | 2 |
| 18 (21298428) | 2 |
| 16 (20716653) | 3 |
| 59 (22878728) | 2 |
| 58 (15800516) | 2 |

| | |
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| 88 (19421915) | 1 |
| 87 (30203593) | 3 |
| 17 (24071389) | 2 |
| 41 (21381497) | 3 |
| 39 (21136580) | 4 |

| | | | | | | | | | | | | | | | |
|--------------------------------------|-------------------------|------------------|--------------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| CT hip without IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 12 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| MRI hip without and with IV contrast | Usually not appropriate | Limited | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 8 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |

| References | Study Quality |
|---------------|---------------|
| 34 (16275571) | 4 |
| 63 (12606867) | 4 |
| 62 (8451409) | 4 |
| 61 (8657921) | 3 |
| 84 (20173149) | 3 |
| 83 (25277527) | 3 |

| | | | | | | | | | | | | | | | |
|---|-------------------------|------------------|----------------|--|---|---|----|---|---|---|---|---|---|---|---|
| Bone scan hip | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT hip with IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 11 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CT hip without and with IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 13 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Expert Consensus | ☹☹☹☹ 10-30 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Variant 5: Chronic hip pain. Radiographs equivocal or positive for mild osteoarthritis. Evaluate articular cartilage integrity. Next imaging study.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|---------------------|--------------------------|--------|------------|----------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MR arthrography hip | Usually | Strong | ○ 0 mSv | ○ 0 mSv | 9 | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 9 |

| | | | | | | | | | | | | | | | | | |
|---|-------------------------|------------------|----------------|---------------|---|---|---------------|---|---|---|---|---|---|---|---|---|---|
| | | 94 (30415421) | | | | | | | | | | | | | | | |
| | | | | | | 4 | | | | | | | | | | | |
| CT hip without IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 12 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRI hip without and with IV contrast | Usually not appropriate | Limited | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 9 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | References | | | | | Study Quality | | | | | | | | | | |
| | | 97 (26304042) | | | | | 3 | | | | | | | | | | |
| | | 96 (28209142) | | | | | Inadequate | | | | | | | | | | |
| Bone scan hip | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US hip | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 10 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT hip with IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 13 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CT hip without and with IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Expert Consensus | ☹☹☹☹ 10-30 mSv | | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Variant 6: Chronic hip pain. Radiographs suspicious for intra-articular synovial hyperplasia or neoplasia, including nodular synovitis, diffuse tenosynovial giant cell tumor, osteochondromatosis, other synovial neoplasm. Next imaging study.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|--------------------------------------|--------------------------|------------------|--------------|---------------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| MRI hip without IV contrast | Usually appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 8 | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 8 | 5 |
| MRI hip without and with IV contrast | Usually appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 8 | 8 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 4 | 6 |
| CT arthrography hip | May be appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 4 | 4 | 1 | 1 | 3 | 4 | 5 | 0 | 0 | 0 | 1 |

| | | | | | | | | | | | | | | | |
|--|-------------------------|------------------|----------------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| CT hip without IV contrast | Usually not appropriate | Expert Consensus | ⊕⊕⊕ 1-10 mSv | | 3 | 3 | 4 | 3 | 4 | 2 | 2 | 0 | 0 | 0 | 0 |
| Image-guided aspiration hip | Usually not appropriate | Limited | Varies | Varies | 3 | 3 | 6 | 0 | 2 | 3 | 4 | 0 | 0 | 0 | 0 |
| | | References | Study Quality | | | | | | | | | | | | |
| | | 100 (2383449) | 4 | | | | | | | | | | | | |
| | | 99 (2845469) | 4 | | | | | | | | | | | | |
| MR arthrography hip | Usually not appropriate | Expert Consensus | 0 0 mSv | 0 0 mSv [ped] | 2 | 2 | 7 | 2 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| Bone scan hip | Usually not appropriate | Expert Consensus | ⊕⊕⊕ 1-10 mSv | | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| US hip | Usually not appropriate | Expert Consensus | 0 0 mSv | 0 0 mSv [ped] | 1 | 1 | 10 | 1 | 2 | 1 | 0 | 0 | 1 | 0 | 0 |
| CT hip with IV contrast | Usually not appropriate | Expert Consensus | ⊕⊕⊕ 1-10 mSv | | 1 | 1 | 13 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| CT hip without and with IV contrast | Usually not appropriate | Expert Consensus | ⊕⊕⊕ 1-10 mSv | | 1 | 1 | 10 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 1 |
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Expert Consensus | ⊕⊕⊕⊕ 10-30 mSv | | 1 | 1 | 13 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Image-guided anesthetic +/- corticosteroid injection hip joint or surrounding structures | Usually not appropriate | Expert Consensus | Varies | Varies | 1 | 1 | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

Variant 7: Chronic hip pain with low back or knee pathology or pain. Radiographs demonstrate hip osteoarthritis. Want to quantify amount of pain related to the hip. Next imaging study.

| Procedure | Appropriateness Category | SOE | Adults RRL | Peds RRL | Rating | Median | Final Tabulations | | | | | | | | |
|--|--------------------------|----------|------------|----------|--------|--------|-------------------|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Image-guided anesthetic +/- corticosteroid injection hip joint or surrounding structures | Usually appropriate | Moderate | Varies | Varies | 9 | 9 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 9 |

| References | Study Quality |
|---------------|---------------|
| 22 (23852899) | 2 |
| 21 (15494331) | 3 |
| 20 (-3195116) | 4 |
| 19 (16177412) | 4 |

| | | | | | | | | | | | | | | | |
|---------------------|-------------------------|--------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|
| CT arthrography hip | Usually not appropriate | Strong | ☹☹☹ 1-10 mSv | | 1 | 1 | 11 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------|-------------------------|--------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 18 (21298428) | 2 |
| 93 (25352941) | 3 |
| 92 (16990027) | 2 |
| 91 (16037508) | 1 |
| 90 (16242374) | 3 |
| 13 (22915391) | 4 |

| | | | | | | | | | | | | | | | |
|----------------------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|
| CT hip without IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 13 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
|----------------------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|---------------------|-------------------------|---------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| MR arthrography hip | Usually not appropriate | Limited | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 10 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 |
|---------------------|-------------------------|---------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|

| References | Study Quality |
|---------------|---------------|
| 13 (22915391) | 4 |

| | | | | | | | | | | | | | | | |
|-----------------------------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| MRI hip without IV contrast | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 11 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|--------------------------------------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| MRI hip without and with IV contrast | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 11 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
|--------------------------------------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|---------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|
| Bone scan hip | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 12 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
|---------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|--------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|
| US hip | Usually not appropriate | Expert Consensus | ○ 0 mSv | ○ 0 mSv [ped] | 1 | 1 | 13 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
|--------|-------------------------|------------------|---------|---------------|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|-------------------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|
| CT hip with IV contrast | Usually not appropriate | Expert Consensus | ☹☹☹ 1-10 mSv | | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------|-------------------------|------------------|--------------|--|---|---|----|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|---|-------------------------|------------------|----------------|--|---|---|----|---|---|---|---|---|---|---|---|
| CT hip without and with IV contrast | Usually not appropriate | Expert Consensus | ☼☼☼ 1-10 mSv | | 1 | 1 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fluoride PET/CT skull base to mid-thigh | Usually not appropriate | Expert Consensus | ☼☼☼☼ 10-30 mSv | | 1 | 1 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Appendix Key

A more complete discussion of the items presented below can be found by accessing the supporting documents at the designated hyperlinks.

Appropriateness Category: The panel's recommendation for a procedure based on the assessment of the risks and benefits of performing the procedure for the specified clinical scenario.

SOE: Strength of Evidence. The assessment of the amount and quality of evidence found in the peer reviewed medical literature for an appropriateness recommendation.

- **References:** The citation number and PMID for the reference(s) associated with the recommendation.
- **Study Quality:** The assessment of the quality of an individual reference based on the number of study quality elements described in the reference.

RRL: Relative Radiation Level. A population based assessment of the amount of radiation a typical patient may be exposed to during the specified procedure.

Rating: The final rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Median: The median rating (1-9 scale) for the procedure as determined by the panel during rating rounds.

Final tabulations: A histogram showing the number of panel members who rated the procedure as noted in the column heading (ie, 1, 2, 3, etc.).

Additional supporting documents about the AC methodology and processes can be found at www.acr.org/ac.