



## Appropriate Use Criteria (AUC)

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**STROUDWATER**  
*Revenue Cycle Solutions*

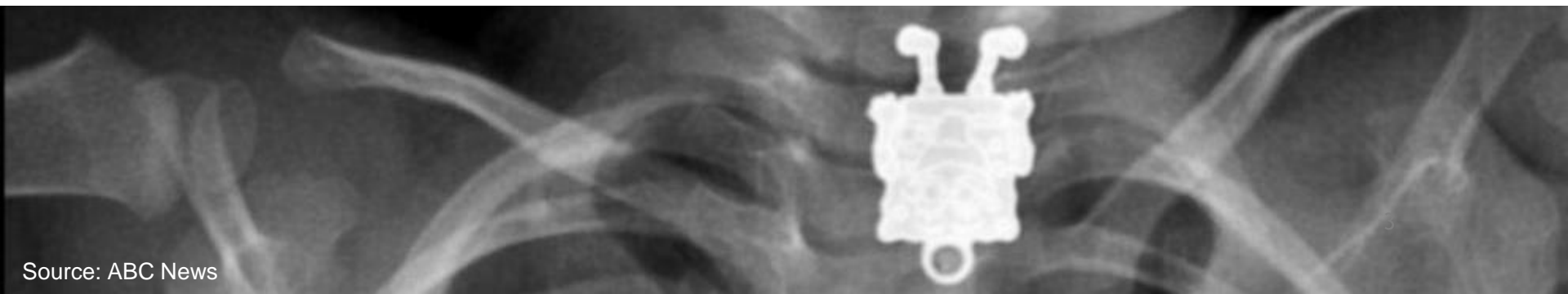
# Appropriate Use Criteria (AUC)

- Set or library of criteria to establish the appropriate use criteria.
- Translation: Library of organized, searchable data identifying effectiveness of radiological techniques for diagnosis and/or staging of conditions known or suspected.
  - The data set includes measured exposure to radiation, and effectiveness of radiology modalities compared to other options
- Evidence-based
- Clinical scenario based
  - Patient's presenting symptoms or condition
- Stand alone or integrated
- Intended for use during patient visit
- Drive interactive, patient/provider decisions



# Why

- Assistance deciding: ordering, delaying or not performing a test
- Provide assistive clinical judgement
- Obtain options
  - Radiation dose
  - Costs
  - Likelihood of false positives
  - Rabbit holes: Incidental radiologic findings of unclear significance that can trigger a cascade of costly and unnecessary testing, cause undue patient anxiety, and result in additional radiation exposure.<sup>4</sup>



# Major Components of Policy

November 15, 2015

- AUC established

Consultation mechanisms identified with AUC

- Ongoing

AUC consultation by ordering professionals beginning July 2019

- Reporting on AUC consultation

Annual identification of outlier ordering professionals by services

- CMS will begin gathering data January 1, 2020
- First outlier reporting begins January 2021

Training requirements or standards

- CMS will not establish

# CMS Implementation Schedule

## July 2019-Jan 2020: Voluntary Period

- Append modifier QQ

## Jan 2020

- Ordering professionals must consult specified applicable AUC through qualified CDSMs
- CMS begins educational and operations testing
- “Continue to pay claims whether or not they correctly include AUC consultation information”

## Jan 2021: Full Implementation

- Require orders to contain consultation information
- Require consultation information on the furnishing professional and furnishing facility claim for the advanced diagnostic imaging service
- Deny:
  - Global services in applicable settings
  - TC component from applicable settings
  - PC reading component

# Acronyms

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<b>CDSM</b>	Clinical Decision Support Mechanism	<ul style="list-style-type: none"><li>• Program that houses library of AUC data</li></ul>
<b>PLE</b>	Provider Led Entity	<ul style="list-style-type: none"><li>• National professional medical specialty society or other organization predominately providing direct patient care</li><li>• Develop, modify or endorse Appropriate Use Criteria established</li></ul>
<b>UCI</b>	Unique Consultation Identifier	<ul style="list-style-type: none"><li>• One code to include all the information required under section including an indication of AUC adherence, nonadherence and not applicable responses</li><li>• Under consideration, not part of the 2020 implementation</li></ul>

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# CDSM

- Interactive, electronic tool for use by clinicians
- Communicates AUC information to the user
- Provides evidence-based guidance for clinical decisions regarding diagnostic imaging based on:
  - Presenting symptoms and/or condition
  - Clinical presentation
- Each CDSM assigned specific G Codes for reporting purposes
- “Should” be able to provide with orders:
  - CDSM specific G-Code
  - Modifier to report
- Approved by CMS
- Must re-apply every five years

# CDSM

- Integrated with, or modules within EMR
- Separate tool:
  - Utilize interface to pull relevant AUC information in
  - Utilize interface to bring EMR data to AUC tool
  - Manually enter pertinent information
    - Specific patient characteristics
    - Laboratory results
    - Lists of co-morbid diseases
- “Should be” accessible during patient workup

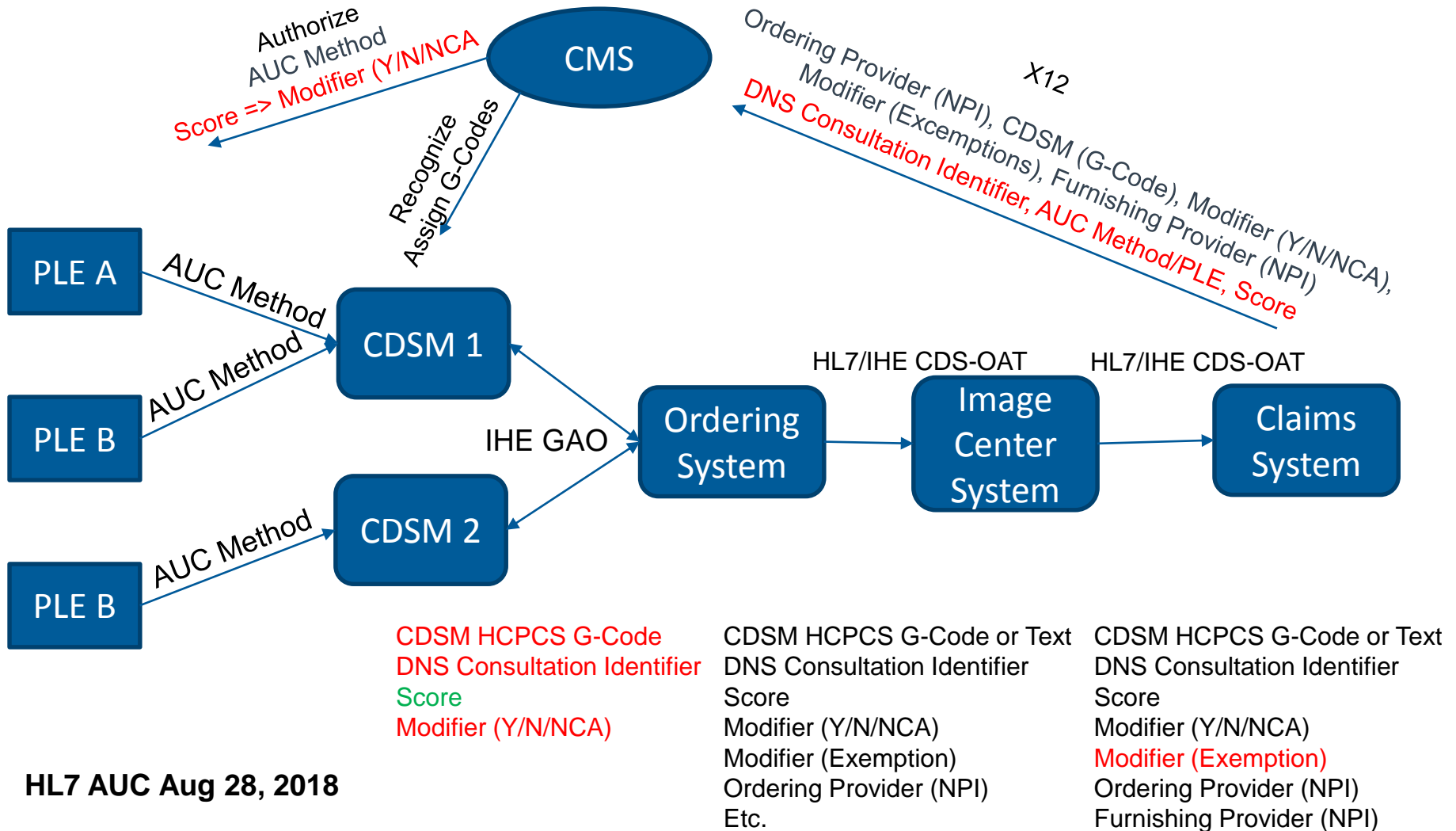


# Applicable Guidelines

- Reporting required on all claims for applicable imaging service, paid for under applicable payment system
  - Physician Fee Schedule:
    - Applies when billed globally
    - PC or TC depending on site
  - OPPS (including Emergency Room)
  - ASC
  - Independent Testing Facilities
  - Any other provider-led outpatient setting determined appropriate
  - Will not, at this time match PC and TC claims for compliance
- Ordered on or after January 1, 2020
- Report the AUC consultation information on the claim for furnishing provider services

# CMS Appropriate Use Criteria: Core Concepts

## Policy, System and Standards Interactions



HL7 AUC Aug 28, 2018

# Bugs

- Ordering Physician NPI required on the Furnishing provider claim
  - Where?
  - CMS will work to identify a potentially appropriate place on the furnishing facility so that fields on the claims are correctly populated
  - Claim form changes may be needed
  - Will consider other implementation options

32. SERVICE FACILITY LOCATION INFORMATION		33. BILLING PROVIDER INFO & PH # ( )	
a. NPI	b.	a. NPI	b.

1500 Form

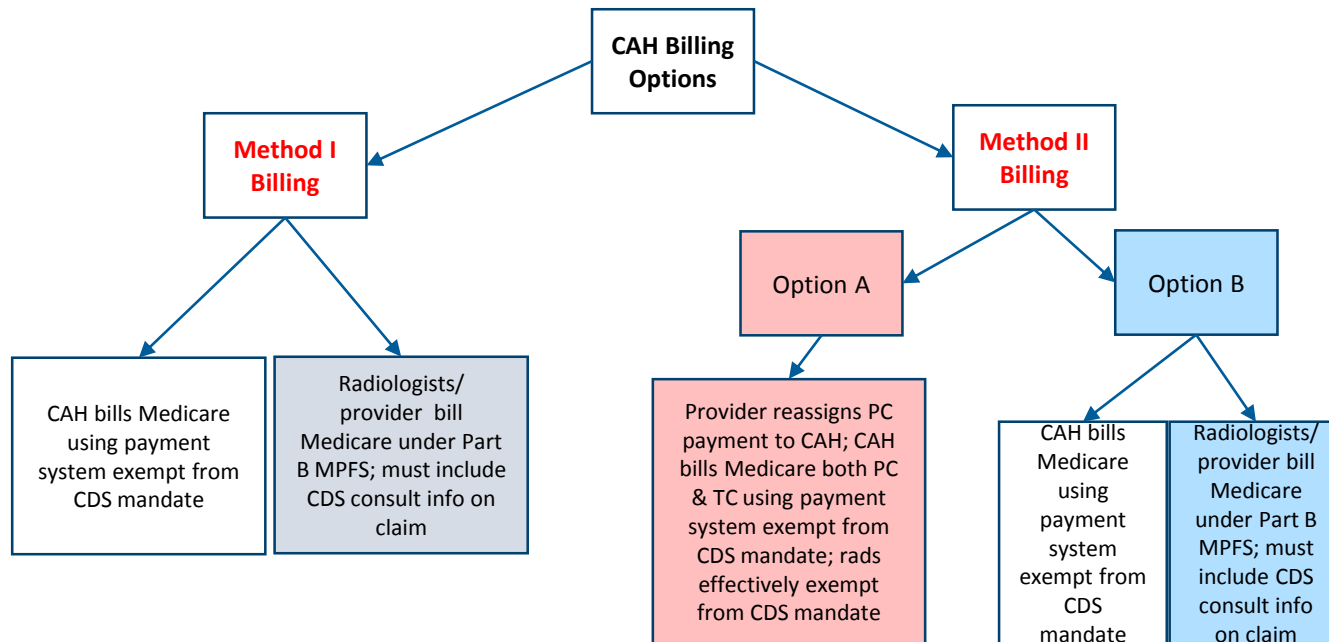
76 ATTENDING	NPI	QUAL	
LAST		FIRST	
77 OPERATING	NPI	QUAL	
LAST		FIRST	
78 OTHER	NPI	QUAL	
LAST		FIRST	
79 OTHER	NPI	C	
LAST		FIRST	

UB-04

# Bugs

- What if more than one CDSM consulted?
  - Patient brings multiple exams for second opinion
  - Multiple providers order exams and patient schedules same day
  - Cannot map CDSM G-codes to exams
  - Cannot map multiple consulting NPIs
  - Per CMS multiple claims not optimal
  - UCI under consideration
- CAH performs test, non exempt provider reads exam
- Single event hardships – gray area

# CAH Billing Method Impact



# Ordering Professionals

- Consult with CDSM
- Interact with patient
  - Discuss imaging needs or lack thereof
  - Appropriateness
  - Risks/benefits
- Provide required information along with order to furnishing professional

# Who Can Change Order

- Ordering physician
- Furnishing professional may perform their own AUC consultation to verify information
- Cannot replace original order
- Physical Therapists cannot order, or change order

# Ordering Professional: Options

- Clinical staff can consult with CDSM
- Requires “level of clinical knowledge necessary to effectively coordinate and communicate with the treating clinician”
- Typically work “*incident to*” the practitioner’s professional service, and able to:
  - Perform care management services including
    - Chronic care management (CCM),
    - Behavioral health integration (BHI)
    - Transitional care management (TCM) service
- “Close relationship between the ordering professional and individual consulting the AUC”
- Available to ordering professional to discuss results and any adjustments



# Ordering Professional - Options

- CMS assumes non adherence with CDSM will be reported back to ordering provider to:
  - Consider different test
  - Approve original test
- Ordering professional is ultimately responsible for the consultation
- Ordering NPI is on the line
- Could be identified as an outlier ordering professional

# Furnishing Professional

- Furnishing professional accurately reports CDSM information on claims for applicable imaging services
- NPI of ordering professional
- G-codes identifying CDSM consulted. If there is more than one imaging service, a single G-code will be attributed to all images
- Modifiers to report consultation information on claims
  - Service ordered adheres to the applicable appropriate use criteria;
  - Service ordered does not adhere to such criteria;
  - Criteria is not applicable to the service ordered;
  - Hardship categories
- Modifiers under consideration for services
  - Ordered in one location and furnished at another
  - Furnished after a second consultation has occurred,
  - Result of interpretation-only services.
- ? Multiple exams, different CDSMs same DOS

# Claim Requirements

- NPI of the ordering professional (if different from the furnishing professional)
- The qualified CDSM consulted
- Applicable modifiers
  - Whether the service ordered would or would not adhere to specified applicable AUC;
  - Specified applicable AUC consulted was not applicable to the service ordered;
  - Exception modifiers

# Outlier Reporting

- Reporting will begin with Priority Clinical Areas identified
- Match NPI of ordering provider on furnishing provider claims
- Identify adherence to AUC determination
- Outlier professionals will be subject to additional Prior Authorization requirements
- Other penalties or restrictions as determined by future rulemaking
- Per Final Rule 2019
- “We will not have identified any outlier ordering professionals by that date (January 2020). As such, implementation of the prior authorization component is delayed.”

# Priority Clinical Areas

- AUC consultation is required for all advanced diagnostic imaging services, not just those within the priority clinical areas.
- Priority Clinical Areas
  - Coronary artery disease (suspected or diagnosed).
  - Suspected pulmonary embolism.
  - Headache (traumatic and non-traumatic).
  - Hip pain.
  - Low back pain.
  - Shoulder pain (to include suspected rotator cuff injury).
  - Cancer of the lung (primary or metastatic, suspected or diagnosed).
  - Cervical or neck pain.
  - Additional priority clinical areas will be proposed in future rulemaking.

# Single Exam Exceptions

- Inpatient paid under Part A
- Emergency medical condition as defined in section 1867(e)(1) of the Act,
- ...“Absence of immediate medical attention could reasonably be expected to result in—
  - Placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy,
  - Serious impairment to bodily functions, or
  - Serious dysfunction of any bodily organ or part; or
  - With respect to a pregnant woman who is having contractions—
    - That there is inadequate time to effect a safe transfer to another hospital before delivery, or
    - That transfer may pose a threat to the health or safety of the woman or the unborn child.”

# Single Exam Exceptions

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- Suspected but not yet confirmed, for example,
  - Severe pain
  - Severe allergic reactions
- Exception is applicable even if it is determined later that the patient did not in fact have an emergency medical condition

# Hardship Exceptions

- Physician granted significant hardship exception - self attestation required:
  - Insufficient internet access as specific to the location where an advanced diagnostic imaging service is ordered by the ordering professional
    - Insurmountable barriers to obtaining infrastructure to have internet access (that is, lack of broadband)
  - Temporary technical problems, installation or upgrades that temporarily impede access to the CDSM
  - CDSM vendor ceases operation, or CMS de-qualifies CDSM
    - If integrated into EHR, and installation issues associated with switching to a new vendor



# Hardship Exceptions

- Extreme and uncontrollable circumstances
- Disasters, natural or man-made, that have a significant negative impact on
  - Healthcare operations
  - Area infrastructure or communication systems
- Designated by FEMA as a major disaster
- Public health emergency declared by the Secretary
- Identify the ordering professional's self-attested significant hardship category.

# Hardship Exceptions

- Losing CDSM usernames and password does not qualify
- Slow internet does not constitute hardship
- No CDSM G-Code is required when exception applies
- Hardship modifier must be added to furnishing provider claim
- Self Attestation of ordering provider

# Appropriate Use Considerations

- Condition known or suspected
- Optional exams
- Effectiveness of options
- Evidence-based tables
  - Studies available to support ratings
  - Identify and compare radiation exposure

# Radiation Dose

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- Measures radiation absorbed
- Effective dose measured in mSv - millisievert
- Measures absorbed radiation
- Evaluates pediatrics and adults

# Sample Exam - ACR Manual Process

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- Acute hip pain suspected fracture
- Chronic hip pain
- Follow-up malignant or aggressive musculoskeletal tumor
- Imaging after total hip arthroplasty
- Osteonecrosis of the hip
- ACR Appropriate Use Criteria Tables

# Chronic Hip Pain

- Chronic hip pain. First test.
- Radiographs negative, equivocal, or non diagnostic.
  - Suspect extrararticular non infections soft tissue abnormality, such as tendonitis
  - Suspect impingement
  - Suspect labral tear w/w out findings consistent or suggestive of impingement
- Evaluate articular cartilage
- Evaluate cartilage. Next test after radiographs
- Radiographs positive. Arthritis of uncertain type. Infection is considered

[https://acsearch.acr.org/list?\\_ga=2.268378317.2120238737.1556040914-1258174711.1552496327](https://acsearch.acr.org/list?_ga=2.268378317.2120238737.1556040914-1258174711.1552496327)

# Hip Pain: Musculoskeletal

Topic Name	Narrative & Rating Table	Evidence Table	Lit Search	Appendix
Acute Hand and Wrist Trauma	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Acute Hip Pain-Suspected Fracture	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Acute Trauma to the Ankle	 Narrative & Rating Table	 Evidence Table		 Appendix
Acute Trauma to the Foot	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Acute Trauma to the Knee	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Chronic Ankle Pain	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Chronic Back Pain: Suspected Sacroiliitis/Spondyloarthritis	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Chronic Elbow Pain	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Chronic Extremity Joint Pain–Suspected Inflammatory Arthritis	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix
Chronic Foot Pain	 Narrative & Rating Table	 Evidence Table		 Appendix
Chronic Hip Pain	 Narrative & Rating Table	 Evidence Table	 Lit Search	 Appendix

# Radiation Level Designation

<b>Relative Radiation Level Designations</b>		
<b>Relative Radiation Level*</b>	<b>Adult Effective Dose Estimate Range</b>	<b>Pediatric Effective Dose Estimate Range</b>
O	0 mSv	0 mSv
☢	<0.1 mSv	<0.03 mSv
☢☢	0.1-1 mSv	0.03-0.3 mSv
☢☢☢	1-10 mSv	0.3-3 mSv
☢☢☢☢	10-30 mSv	3-10 mSv
☢☢☢☢☢	30-100 mSv	10-30 mSv

\*RRL assignments for some of the examinations cannot be made, because the actual patient doses in these procedures vary as a function of a number of factors (eg, region of the body exposed to ionizing radiation, the imaging guidance that is used). The RRLs for these examinations are designated as “Varies”.



# Research Library

Literature Search Performed on: 03/06/2017

Beginning Date: January 2012

End Date: February 2017

Database:

Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R)

## Summary

Source	#Unique Refs	#Retained Refs
Old bibliography	47	29
Literature Search(es)	447	20
Author Added	5	2
Supporting Docs	1	1
Total		52

References from the literature search that were not retained had a poor study design, were not relevant to the topic, or had unclear or biased results.

# Hip Pain: Appropriateness Criteria

## Acute Hip Pain-Suspected Fracture



Reference	Study Type	Patients/Events	Study Objective(Purpose of Study)	Study Results	Study Quality
20. Cannon J, Silvestri S, Munro M. Imaging choices in occult hip fracture. J Emerg Med. 2009;37(2):144-152.	Review/Other-Dx	N/A	To review the literature focused on hip fracture detection and discuss advantages and limitations of each major imaging modality.	Plain radiographs are usually sufficient for diagnosis as they are at least 90% sensitive for hip fracture. However, in the 3%-4% of emergency department patients having hip X-ray studies who harbor an occult hip fracture, the emergency physician must choose among several methods, each with intrinsic limitations, for further evaluation. These methods include CT, scintigraphy, and MRI.	4



<b>Meta-analysis</b>	<ul style="list-style-type: none"> <li>▪ Good quality – the study design, methods, analysis, and results are valid and the conclusion is supported.</li> <li>▪ Inadequate quality – the study design, analysis, and results lack the methodological rigor to be considered a good meta-analysis study.</li> </ul>	n/a	n/a
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# Hip Pain

**Variant 1: Acute hip pain. Fall or minor trauma. Suspect fracture. Initial imaging.**

Procedure	Appropriateness Category	SOE	Adult RRL	Peds RRL	Rating	Median	Final Tabulations									
							1	2	3	4	5	6	7	8	9	
Radiography hip	Usually appropriate	<a href="#">References</a>	☼☼☼ 1-10 mSv		9	9	0	0	0	0	0	0	0	1	3	10
Radiography pelvis	Usually appropriate	Limited <a href="#">References</a>	☼☼ 0.1-1mSv	☼☼ 0.03-0.3 mSv [ped]	9	9	0	0	0	0	0	0	0	2	3	9
Radiography pelvis and hips	Usually appropriate	Limited <a href="#">References</a>	☼☼☼ 1-10 mSv	☼☼☼☼ 3-10 mSv [ped]	9	9	1	0	0	0	0	0	0	0	0	13
US hip	Usually not appropriate	Limited <a href="#">References</a>	○ 0 mSv	○ 0 mSv [ped]	1	1	13	0	1	0	0	0	0	0	0	0
CT pelvis and hips without IV contrast	Usually not appropriate	Limited <a href="#">References</a>	☼☼☼ 1-10 mSv		1	1	9	0	1	0	2	1	1	0	0	0
CT pelvis and hips with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼ 1-10 mSv		1	1	11	1	1	0	0	1	0	0	0	0
CT pelvis and hips without and with IV contrast	Usually not appropriate	Expert Consensus	☼☼☼☼ 10-30 mSv		1	1	12	1	0	0	0	1	0	0	0	0
MRI pelvis and affected hip without IV contrast	Usually not appropriate	Expert Consensus	○ 0 mSv	○ 0 mSv [ped]	1	1	10	1	1	0	0	1	0	1	0	0
MRI pelvis and affected hip without and with IV contrast	Usually not appropriate	Limited <a href="#">References</a>	○ 0 mSv	○ 0 mSv [ped]	1	1	11	1	2	0	0	0	0	0	0	0

Need help? Please contact us with any questions or concerns.

# Hip Pain

**American College of Radiology  
ACR Appropriateness Criteria®  
Acute Hip Pain-Suspected Fracture**

**Variant 1:                      Acute hip pain. Fall or minor trauma. Suspect fracture. Initial imaging.**

Procedure	Appropriateness Category	Relative Radiation Level
Radiography hip	Usually Appropriate	☼☼☼
Radiography pelvis	Usually Appropriate	☼☼
Radiography pelvis and hips	Usually Appropriate	☼☼☼
CT pelvis and hips with IV contrast	Usually Not Appropriate	☼☼☼
CT pelvis and hips without and with IV contrast	Usually Not Appropriate	☼☼☼☼
CT pelvis and hips without IV contrast	Usually Not Appropriate	☼☼☼
MRI pelvis and affected hip without and with IV contrast	Usually Not Appropriate	○
MRI pelvis and affected hip without IV contrast	Usually Not Appropriate	○
Tc-99m bone scan hips	Usually Not Appropriate	☼☼☼
US hip	Usually Not Appropriate	○

# CDSM for Quality Improvement

- Identify suspected overuse technology
- 25+ cases
- Choose anatomic area
- Choose procedure group (CT, MR etc.)
- Establish goals
- Partner with radiologist and physicians
- Patient engagement
- Retrospective review
  - Prior authorization team
  - Business office
  - Financial counselor
- <http://qcdsm.nationaldecisionsupport.com/>

# Questions



# Thank You



- Stroudwater Revenue Cycle Solutions was established to help our clients navigate through uncertain times and financial stress. Increased denials, expanding regulatory guidelines and billing complexities have combined to challenge the financial footing of all providers.
- Our goal is to provide resources, advice and solutions that make sense and allow you to take action.
- We focus on foundational aspects which contribute to consistent gross revenue, facilitate representative net reimbursement and mitigate compliance concerns. Stroudwater Revenue Cycle Solutions helps our clients to build processes which ensure ownership and accountability within your revenue cycle while exceeding customer demands.
- **Contact us to see how we can help.**

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# Sources

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