

# Diagnostic Coding Series I: Ultrasound Coding Challenges

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# Agenda

- Ultrasound Basics
- Complete Vs. Limited
- Nonvisualization
- Exam Criteria & Tips:
  - Breast US
  - Extremity US
  - Abdominal US
  - Retroperitoneal US
  - Non-OB Pelvic US
  - OB Pelvic US
  - Vascular US/Duplex Studies
- Challenges and Discussion Points

# Resources

- AMA
- CMS
- ACR



# Ultrasound Basics

- Ultrasound is an imaging method that uses high-frequency sound waves to produce images of structures in the body
- Most commonly used to evaluate:
  - Breast tissue
  - Abdominal and pelvic organs
  - Muscles and tendons
  - Heart & Blood vessels
  - Fetal development

# Complete vs. Limited Study

## Complete

- When ALL required elements are documented OR *there is supporting documentation for the reason for nonvisualization of a required component of the study*

## Limited

- When *less than the required elements for a complete* are not documented this would be assigned a limited code

# Nonvisualization

- Per the ACR and the AMA, documentation of all elements that constitute a complete examination must be given. To report a complete examination, all of the elements must be described in the procedure report.
- If a required element cannot be visualized, the reason for nonvisualization must be given or the limited study code must be reported
  - Obscured by bowel gas
  - Surgically absent
  - Too early in gestation



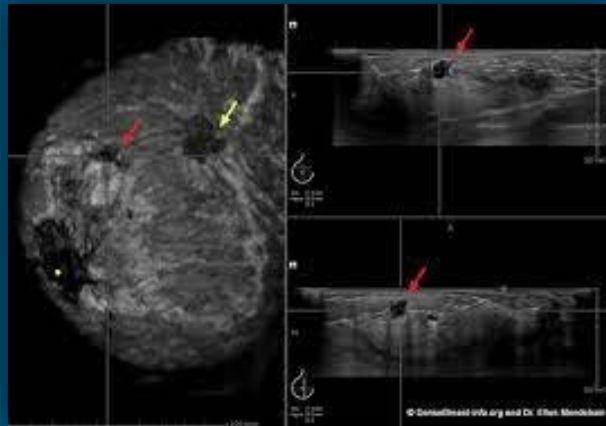
# Exam Criteria & Tips

- Breast US
- Extremity US
- Abdominal US
- Retroperitoneal US
- Non-OB Pelvic US
- OB Pelvic US
- Vascular US/Duplex Studies

# Breast Ultrasound

## COMPLETE

- All 4 quadrants of the breast
- Retroareolar region



- Codes are unilateral
- “Around the clock”
- Codes include evaluation of the axilla if performed

# Extremity Ultrasound

## COMPLETE

- Joint space
- Peri-articular soft tissue structures surrounding the joint (muscles, tendons, soft tissue)
- Codes are unilateral
- Limited-anything less than what is defined in complete OR a soft tissue mass/cyst/effusion of the extremity
- Ultrasound survey of multiple joints would be 76999



# Abdominal Ultrasound



## COMPLETE

- Liver
- Gallbladder
- Common bile duct
- Pancreas
- Spleen
- Kidneys
- Upper abdominal aorta
- Inferior vena cava

# Retroperitoneal Ultrasound

## COMPLETE

- Kidneys
- Abdominal aorta
- Common iliac artery origins
- Inferior vena cava

OR

*If the clinical history suggests urinary tract pathology:*

- Kidneys & Urinary bladder



- “Renal US”
- Don’t assume pathology

# Pelvic Ultrasound-MALE

## COMPLETE

- Evaluation & measurement of urinary bladder (*when applicable*)
- Prostate
- Seminal vesicles (*to the extent they are visualized transabdominally*)



# Pelvic Ultrasound-FEMALE

TRANSABDOMINAL (TA)- COMPLETE	TRANSVAGINAL (TV)-
<ul style="list-style-type: none"><li>• Uterus and adnexal structures</li><li>• Endometrium</li><li>• Urinary bladder <i>(w/ measurements when applicable)</i></li></ul>	<ul style="list-style-type: none"><li>• Uterus</li><li>• Endometrium</li><li>• Ovaries and adnexa</li></ul>



- TV w/o uterus would require -52 modifier

# OB Pelvic Ultrasound

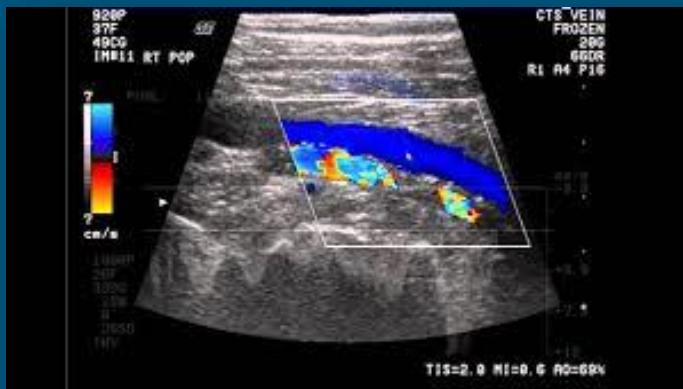
<14 WEEKS	>14 WEEKS	DETAILED
<ul style="list-style-type: none"> <li>• Number of gestational sacs and fetuses</li> <li>• Gestational sac/fetal measurements appropriate for gestation</li> <li>• Survey of visible fetal and placental anatomic structure</li> <li>• Qualitative assessment of amniotic fluid volume/gestational sac shape</li> <li>• Examination of the maternal uterus and adnexa</li> </ul>	<ul style="list-style-type: none"> <li>• Number of fetuses and amniotic/chronic sacs</li> <li>• Measurement of appropriate for gestational sacs (&gt;14 weeks)</li> <li>• Survey of intracranial anatomy</li> <li>• Survey of spinal anatomy</li> <li>• Survey of abdominal anatomy</li> <li>• Survey of 4 chambered heart</li> <li>• Survey of umbilical cord insertion site</li> <li>• Survey of placenta location</li> <li>• Survey of amniotic fluid assessment</li> <li>• When visible examination of maternal adnexa</li> </ul>	<p><b>All elements of 76805 PLUS detailed evaluation of:</b></p> <ul style="list-style-type: none"> <li>• Brain/ventricles</li> <li>• Face</li> <li>• Heart/outflow tracts</li> <li>• Specific abdominal organs</li> <li>• All limbs</li> <li>• Umbilical cord/placenta</li> </ul>

- Limited Study (76815)
- Transvaginal (76817)
- Twin/Multiple



# Vascular Ultrasound/Duplex Studies

- Terminology:
  - B-mode: 2D ultrasound imaging
  - Doppler: High-frequency sound waves to evaluate vessels
  - Color Flow: Color image of the vessel combined with B-mode image
  - Spectral Analysis-graphical representation of blood flow
  - Duplex: Combines Doppler with color flow and imaging



# Duplex Terminology

Supporting Terminology		
Analog velocity Pulsatility Bandwidth broadening Resistive index Duplex Doppler	Spectral analysis Monophasic Spectral broadening Peak systolic velocity Spectral Doppler Phasicity	Tardus parvus waveforms Power Doppler Triphasic Pulsed Doppler Velocity

- *ACR Ultrasound Coding User's Guide*

# Vascular Ultrasound/Duplex Studies

- A duplex scan requires production of “real time images integrating B-mode 2D vascular structure, Doppler spectral analysis, and color flow Doppler imaging”
- The report must also include documentation in the findings related to the vasculature
- If all are not documented must be coded as a nonvascular US

*Per the AMA, all three components must be performed and documented in order to report a duplex scan. Without documentation of spectral analysis, it does not qualify as a Duplex scan and it would be inappropriate to report a Duplex code.*

# Vascular Ultrasound/Duplex Studies

- Common Duplex Studies:
  - Extracranial/Carotid
  - Upper Extremity Arterial
  - Lower Extremity Arterial
  - Upper/Lower Extremity Venous
  - Abdomen/Pelvis

# Duplex-Abdomen/Pelvis

COMPLETE	LIMITED
Arterial supply and venous drainage of an organ(s) in the abdomen and pelvis	<ul style="list-style-type: none"><li>• Arterial only</li><li>• Venous only</li><li>• Unilateral</li></ul>

- For bilateral organs, BOTH should be assessed for a complete study
- Reported once whether one or multiple organs are evaluated

# Coding Challenges & Discussion Points

- Miscellaneous Ultrasound
- Transabdominal with Transvaginal Studies
- OB US < 14 Weeks
- Detailed OB US
- Follow Up OB Ultrasound
- Duplex with Nonvascular US
- Ultrasound with US-guided Procedure

# Miscellaneous/Soft Tissue Ultrasound

BODY SITE	RECOMMENDED CPT
Axilla	76882
Chest wall	76604-52
Upper back	76604-52
Lower back	76705
Abdominal wall	76705
Pelvic wall	76857
Buttock	76857
Penis	76857
Groin	76882
Perineum	76857
Extremity	76882
Otherwise not defined	76999

*CPT Assistant & ACR Ultrasound Coding User's Guide*

# Transabdominal with Transvaginal US

- Often performed together
- Can be billed together when medically necessary
  - Better visualization
  - No CCI edit
- Documentation:
  - Recommend separate paragraphs
  - Header/technique should be consistent



# Transabdominal with Transvaginal US

How should a complete pelvic ultrasound (76856) when performed with a *transvaginal* (TV) ultrasound (76830) be reported? Should the pelvic ultrasound be coded as limited if the transabdominal (TA) examination does not explicitly state all required measurements, even if the “missing” structures are measured in the TV section? In this scenario is it necessary to document measurements specifically under the TA portion of the examination?

*The goal of all diagnostic examinations, including pelvic ultrasound, is to obtain and clearly convey diagnostic information from the radiologist to the patient and ordering physician. Coding rules should not interfere with the goal.*

*The coding requirements for a complete pelvic ultrasound should not impede providing clear information, which might occur if measurements were stated in both the TA and TV sections of the report. In pelvic ultrasound, TA and TV technologies differ enough that they can produce slightly different measurements. Instead, it may be less confusing if the report reflects what the radiologist determines to be the most accurate measurements, regardless of whether the measurements are obtained by TA or TV scanning. As long as the required measurements are provided in the final report, the procedure should not be downgraded to a limited pelvic ultrasound (76857) solely because the measurements are not explicitly attributed to the TA portion of the examination.*

*AMA's Clinical Examples in  
Radiology, Volume 17, Issue 1, 2021*

# OB US <14 Weeks

- “When the pregnancy is in the first trimester (less than 14 weeks), the coder should remember that the required elements for CPT® code 76801 will be those that are “appropriate for gestation” and “visible.” If any of the elements listed in the CPT code book are not able to be measured or are not visible, then the report should document that information in order to assign 76801. If any of the elements are not documented, the limited OB ultrasound study should be assigned (76815). Among the required elements, “qualitative assessment of amniotic fluid volume” refers to the radiologist’s statement, based on his or her experience and knowledge, that the volume is adequate or inadequate.”
- “The radiologist must note in his/her dictation that a survey of placental anatomic structure could not be performed because of gestational age. As noted in the CPT 2005 code book introductory notes prior to the diagnostic ultrasound codes: “For those anatomic regions that have ‘complete’ and ‘limited’ ultrasound codes, note the elements that comprise a ‘complete’ exam. The report should contain a description of these elements or the reason that an element could not be visualized (eg, obscured by bowel gas, surgically absent, etc.).”

## <14 WEEKS

- Number of gestational sacs and fetuses
- Gestational sac/fetal measurements appropriate for gestation
- Survey of visible fetal and placental anatomic structure
- Qualitative assessment of amniotic fluid volume/gestational sac shape
- Examination of the maternal uterus and adnexa

# Detailed OB US (“Level II”)

- The detailed fetal anatomic examination (CPT 76811) is not intended to be the routine ultrasound examination performed for all pregnancies. Rather, it is an indication-driven examination performed for a known or suspected fetal anatomic abnormality, known fetal growth disorder, genetic abnormality, or increased risk for a fetal anatomic or genetic abnormality.
  - This examination includes maternal adnexal and uterine evaluation, and requires a referring physician’s order that requests both the detailed anatomy examination and includes a list of high-risk indications. Reporting code 76811 and add-on code 76812 should include documentation of medical necessity over and above the study for a routine OB ultrasound greater than 14 weeks (e.g., family or personal history of congenital anomaly, abnormal nuchal translucent markers).

*AMA’s Clinical Examples in Radiology, Volume 17, Issue 4, 2021*

- There must be documentation of the medical necessity of the study over and above that for the routine complete OB ultrasound >14 weeks. Examples of which might include family or personal history of a specific congenital anomaly (list the specific anomaly in the report indications), abnormal maternal serum markers such as triple screen or nuchal translucent (NT) markers.

*ACR Ultrasound Coding User’s Guide*

# Follow-Up OB US

76816-Ultrasound, pregnant uterus, real time with image documentation, follow-up (e.g., re-evaluation of fetal size by measuring standard growth parameters and amniotic fluid volume, re-evaluation of organ system(s) suspected or confirmed to be abnormal on a previous scan), transabdominal approach, per fetus

- Documentation Tips:
  - Document previous scan
  - Document abnormality being followed up OR if study is for reassessing size, dates, etc.

# Duplex with Nonvascular US

- A duplex vascular ultrasound may be reported in addition to a real time ultrasound study, when both are ordered by the referring physician due to medical necessity, and both studies are performed and clearly documented with findings for both.
- Should not be coded when a “quick look” with color Doppler is done to check whether flow is present or for structure identification.
- Separate report headers with associated findings are recommended
- Check CCI Edits

# Ultrasound with US Guidance

From NCCI 2022 Coding Policy Manual Chapter 9

*Evaluation of an anatomic region and guidance for a needle placement procedure by the same radiologic modality on the same date of service may be reported separately if the 2 procedures are performed in different anatomic regions. For example, a provider/supplier may report a diagnostic ultrasound CPT code and CPT code 76942 (Ultrasonic guidance for needle placement...and interpretation) when performed in different anatomic regions on the same date of service. Providers/suppliers shall not avoid edits based on this principle by requiring patients to have the procedures performed on different dates of service if historically the evaluation of the anatomic region and guidance for needle biopsy procedures were performed on the same date of service. Physicians shall not inconvenience beneficiaries nor increase risks to beneficiaries by performing services on different dates of service to avoid MUE or NCCI PTP edits.*

# Q&A



# Thank you!

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