Clinical Practice Guideline: **Non-Vascular Extremity Ultrasound**

Date of Implementation: **May 21, 2015**

Product: **Specialty**

GUIDELINES

Non-Vascular extremity ultrasound examination (complete and limited) may be medically reasonable and necessary for the following conditions:

- To detect cysts, abscesses, tumors (including evaluation of size of tumors) and effusion;
- To distinguish solid tumors from fluid-filled cysts;
- To evaluate tendons (including tears, tendonitis, and tenosynovitis), joints, plantar fascia, ligaments, soft tissue masses, ganglion cysts, intermetatarsal neuroma and stress fractures of the metatarsals; and
- To aid in the diagnosis of and surgical removal of foreign bodies.

Extremity ultrasound is limited to studies of the arms and legs. The upper extremity includes any part of the arm from the shoulder joint through the fingers including the clavicular and the scapular portions of the upper appendage but excluding the sternoclavicular joint. The lower extremity includes any part of the leg inferior to or below the inguinal ligament.

1. Extremity ultrasound including but not limited to the following conditions is considered not medically necessary for routine diagnosis or management:
    - Bunions
    - Cellulitis
    - Neuromas (where the clinical impression is obvious, and ultrasound is not likely to add further information)
    - Paronychia
    - Plantar warts
    - Superficial abscesses
2. Extremity ultrasound is considered not medically necessary for diagnosis or management of neuromas, superficial ganglia, bursae, and abscesses unless there is documented evidence of some clinical presentation that obscures the clinician's ability to establish these simple clinical diagnoses.
3. Bilateral studies are allowed only if there is pathology of both extremities dictating medical necessity for two distinct examinations. It is not reasonable and necessary to perform the contralateral extremity as a "control" or for comparison with normal.
4. Extremity ultrasound is considered not medically necessary in the initial determination (diagnosis) of plantar fasciitis. A single diagnostic extremity

ultrasound may be medically necessary for plantar fasciitis when the diagnosis is still uncertain after a failed course of conservative management. Repeated extremity ultrasound is not medically necessary in plantar fasciitis.

5. Extremity ultrasound in excess of 2 tests per extremity in 6 months will be considered not medically necessary.

Billing examples

Example A:

A complete examination of the elbow and shoulder on the right upper extremity would result in CPT code 76881 x 1 being submitted for reimbursement.

Example B:

A limited examination for an Achilles tendon injury would result in CPT code 76882 x 1 being submitted for reimbursement.

Example C:

The following example is of appropriate documentation for a complete non-vascular ultrasound of the ankle. According to the CPT Changes, **ALL of the following** must be documented to submit CPT code 76881 for reimbursement:

1. Evaluation of the lateral structures of the ankle including:
    a. The peroneus longus and peroneus brevis tendons for tears, tendinosis, or tenosynovitis. Dynamic imaging is also performed with circumduction of the ankle to assess for peroneal subluxation in real time.
    b. The anterior talofibular ligament, calcaneofibular ligament, and anterior inferior tibiofibular ligament for tears or scarring. Stress maneuvers are performed to evaluate for ligamentous laxity and anterolateral ankle impingement.
2. Evaluation of the medial structures of the ankle including:
    a. The posterior tibial, flexor digitorum longus, and flexor hallucis longus tendons for tears, tendinosis, or tenosynovitis.
    b. The deltoid ligament for tears or scarring.
    c. The neurovascular bundle for signs of nerve swelling or compression.
3. Evaluation of the anterior structures of the ankle including:
    a. The tibialis anterior tendon for tears, tendinosis, or tenosynovitis.
    b. The ankle joint for effusions, synovitis, arthritic changes, and adjacent ganglion cysts.
4. Evaluation of the posterior structures of the ankle including:
    a. The Achilles tendon for tears, tendinosis, or peritendinitis.
    b. The retrocalcaneal and retroachilles bursa for fluid collections or inflammation.
5. A report is dictated for the patient’s chart.

When billing CPT code 76881, documentation must include this level of detailed information for each joint or for an entire extremity (depending on what was imaged). Failure to document at this level of detail would then only meet the billing requirements for CPT code 76882.

Utilization Parameters

Regardless of the number of joints examined in a single extremity, CPT code 76881 or 76882 can only be billed once per extremity. Both codes require a permanently recorded image(s) and written report containing a description of each of the required elements or the reason that an element(s) could not be visualized.

It is not expected that there will be routine cascading of tests from ultrasound to MRI and vice versa when imaging of extremities is medically necessary.

Provider Training/Qualifications

Extremity ultrasound must be performed by qualified and knowledgeable physicians and/or technicians (sonographers) under the general supervision of a physician.

CPT® Code	CPT® Code Description
76881	Ultrasound, complete joint (i.e., joint space and peri-articular soft tissue structures) real-time with image documentation
76882	Ultrasound, limited, joint or focal evaluation of other nonvascular extremity structure(s) (e.g., joint space, peri-articular tendon[s], muscle[s], nerve[s], other soft tissue structure[s], or soft tissue mass[es]), real-time with image documentation

BACKGROUND

Ultrasound of the extremity is a non-invasive imaging technique that uses high-frequency sound waves to evaluate the extremities (e.g., arms and legs), providing real-time, two-dimensional images. Longitudinal, transverse, and oblique images of the area of interest are obtained. Ultrasound, echography, and sonography are all terms that may be used interchangeably to describe this imaging technique.

Musculoskeletal ultrasound uses several modes to characterize joint pathology, including grey scale, color and power Doppler, spectral Doppler, 3D imaging, elastography. Musculoskeletal ultrasound may detect and monitor multiple joint pathologies including synovitis, tenosynovitis, and tendon pathologies, entheseal processes, bone erosions and osteophytes, cartilage changes and bursal pathologies. (Joshua, 2012).

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a member only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the member to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice guideline for information.

References

Alcalde, M., D'Agostino, M. A., Bruyn, G. A., Moller, I., Iagnocco, A., Wakefield, R. J.,Naredo, E. (2012). A systematic literature review of US definitions, scoring systems and validity according to the OMERACT filter for tendon lesion in RA and other inflammatory joint diseases. Rheumatology (Oxford), 51(7), 1246-1260

American Medical Association. (current year). Current Procedural Terminology (CPT) Current year (rev. ed.). Chicago: AMA

Centers for Medicare and Medicaid Services. Publication 100-03, Medicare National Coverage Determinations Manual, Chapter 1: 220.5 Ultrasound Diagnostic Procedures

Centers for Medicare and Medicaid Services. Local Coverage Determination (LCD): Nonvascular Extremity Ultrasound (L33619). Retrieved on February 23, 2025 from https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=33619

Centers for Medicare and Medicaid Services. Local Coverage Article: Billing and Coding: Nonvascular Extremity Ultrasound (A56787). Retrieved on February 23, 2025 from https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=56787&ver=23&

Feuerstein, C. A., Weil, L., Jr., Weil, L. S., Sr., Klein, E. E., Fleischer, A., & Argerakis, N. G. (2014). Static Versus Dynamic Musculoskeletal Ultrasound for Detection of Plantar Plate Pathology. Foot Ankle Spec, 7(4), 259-265

Irwin, L. R., Konstantoulakis, C., Hyder, N. U., & Sapherson, D. A. (2000). Ultrasound in the diagnosis of Morton's neuroma. Foot, 10(4), 186-189

JCI. (2020). Joint Commission International Accreditation Standards for Hospitals (7th ed.): Joint Commission Resources

Joshua, F. (2012). Ultrasound applications for the practicing rheumatologist. Best Practice & Research Clinical Rheumatology, 26(6), 853-867

Klauser, A. S., Tagliafico, A., Allen, G. M., Boutry, N., Campbell, R., Court-Payen, M., Martinoli, C. (2012). Clinical indications for musculoskeletal ultrasound: A Delphi-based consensus paper of the European society of musculoskeletal radiology. European Radiology, 22(5), 1140-1148

Micu, M. C., Nestorova, R., Petranova, T., Porta, F., Radunovic, G., Vlad, V., & Iagnocco, A. (2012). Ultrasound of the ankle and foot in rheumatology. Med Ultrason, 14(1), 34-41

Mohseni-Bandpei, M. A., Nakhaee, M., Mousavi, M. E., Shakourirad, A., Safari, M. R., & Vahab Kashani, R. (2014). Application of Ultrasound in the Assessment of Plantar Fascia in Patients With Plantar Fasciitis: A Systematic Review. Ultrasound in Medicine & Biology, 40(8), 1737-1754

Molini, L., & Bianchi, S. (2014). US in peroneal tendon tear. J Ultrasound, 17(2), 125-134

Rettedal, D. D., Graves, N. C., Marshall, J. J., Frush, K., & Vardaxis, V. (2013). Reliability of ultrasound imaging in the assessment of the dorsal Lisfranc ligament. J Foot Ankle Res, 6(1), 7

Sconfienza LM, Albano D, Allen G, Bazzocchi A, Bignotti B, Chianca V, Facal de Castro F, Drakonaki EE, Gallardo E, Gielen J, Klauser AS, Martinoli C, Mauri G, McNally E, Messina C, Mirón Mombiela R, Orlandi D, Plagou A, Posadzy M, de la Puente R, Reijnierse M, Rossi F, Rutkauskas S, Snoj Z, Vucetic J, Wilson D, Tagliafico AS. Clinical indications for musculoskeletal ultrasound updated in 2017 by European Society of Musculoskeletal Radiology (ESSR) consensus. Eur Radiol. 2018 Dec;28(12):5338-5351