

COMPETENCIES AND PERFORMANCE INDICATORS

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1. Prevent, diagnose, and manage diseases, disorders, and injuries of the pediatric and adult lower extremity by non-surgical (educational, medical, physical, biomechanical) and surgical means.

1.1. Perform and interpret the findings of a thorough problem-focused history and physical exam, including:

1.1.1. problem focused history.

1.1.1.1. Performance indicators - Knowledge.

1.1.1.1.1. Understands the logical organization of a problem focused history to include:

1.1.1.1.1.1. Chief Complaint.

1.1.1.1.1.2. History of chief complaint (history of present illness).

1.1.1.1.1.3. Past medical history.

1.1.1.1.1.3.1. Illnesses.

1.1.1.1.1.3.2. Medications

1.1.1.1.1.3.3. Allergies.

1.1.1.1.1.3.4. Past surgical history

1.1.1.1.1.3.5. Hospitalizations.

1.1.1.1.1.4. Social history

1.1.1.1.1.5. Family history

1.1.1.1.1.6. Review of systems.

1.1.1.1.2. Understands the details to be asked in obtaining a history of chief complaint (NLDOCATS), past medical history, social history, family history, and review of systems.

1.1.1.2. Performance indicators – Attitudes.

1.1.1.2.1. Uses active listening.

1.1.1.2.2. Communicates effectively with the patient.

1.1.1.2.3. Is attentive to the patient.

1.1.1.2.4. Promotes a calm and reassuring atmosphere for the encounter.

1.1.1.3. Performance indicators – Skills.

1.1.1.3.1. Obtains a problem-focused history in adequate detail.

1.1.1.3.2. Obtains a problem-focused history in appropriate period of time.

1.1.1.3.1. Obtains a problem-focused history using logical organization.

1.1.2. neurologic examination.

1.1.2.1. Performance indicators – Knowledge.

1.1.2.1.1. Understands the correct technique for performing the following components of a problem-focused neurologic examination:

1.1.2.1.1.1. Sensory evaluation, including; gross epicritic sensations (light touch, sharp/dull, vibratory, and hot/cold), Semmes-Weinstein monofilament testing, and two point discrimination testing.

1.1.2.1.1.2. Reflex evaluation, including; Patellar and Achilles reflexes, Pathologic reflexes (Babinski, Chaddock, Oppenheim, and Gordon tests), and Primitive reflexes.

1.1.2.1.1.3. Specific muscle testing.

1.1.2.1.1.4. Evaluation of coordination (stance and gait), including tests of cerebellar function (see also section 1.1.5.1.1.4)

1.1.2.1.1.5. Other clinical tests

- 1.1.2.1.1.5.1. Nerve palpation and percussion (Tinel's, Valleix's)
- 1.1.2.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 1.1.2.1.1
- 1.1.2.1.3. Understands the rationale for performing each of the exam components listed in section 1.1.2.1.1
- 1.1.2.2. Performance indicators – Attitudes.
 - 1.1.2.2.1. Facilitates patient cooperation with the exam.
 - 1.1.2.2.2. Communicates effectively with the patient.
 - 1.1.2.2.3. Is attentive to the patient.
 - 1.1.2.2.4. Promotes a calm and reassuring atmosphere for the encounter.
 - 1.1.2.2.5. Is sensitive to the patient's discomfort during the exam.
- 1.1.2.3. Performance indicators – Skills.
 - 1.1.2.3.1. Utilizes the correct technique for performing each of the components of a problem-focused neurologic examination listed in section 1.1.2.1.1
 - 1.1.2.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 1.1.2.1.1 when performed upon a patient.
 - 1.1.2.3.3. Utilizes appropriate neurologic exam components indicated by patient's chief complaint.
 - 1.1.2.3.4. Performs the problem-focused neurologic exam in an appropriate period of time.

1.1.3. vascular examination.

- 1.1.3.1. Performance indicators – Knowledge.
 - 1.1.3.1.1. Understands the correct technique for performing the following components of a problem-focused vascular examination:
 - 1.1.3.1.1.1. Palpation of femoral, popliteal, and pedal (posterior tibial and dorsalis pedis) pulses.
 - 1.1.3.1.1.2. Auscultation of the arterial tree from abdominal aorta to popliteal artery.
 - 1.1.3.1.1.3. Observation of capillary (subpapillary venous plexus) filling time and venous filling time.
 - 1.1.3.1.1.4. Observation for pallor on elevation / dependent rubor.
 - 1.1.3.1.1.5. Observation for secondary skin changes of vascular disease, including temperature, turgor, color, hair distribution, texture, and the presence of ischemic, vasculitic, or varicose ulcers.
 - 1.1.3.1.1.6. Observation for varicosities.
 - 1.1.3.1.1.7. Examination for superficial and deep venous thrombophlebitis, including:
 - 1.1.3.1.1.7.1. Homan's test
 - 1.1.3.1.1.8. Palpation of inguinal and popliteal lymph nodes.
 - 1.1.3.1.1.9. Observation of lymphangitis and cellulitis.
 - 1.1.3.1.1.10. Observation of level/distribution, severity, and density of peripheral edema.
 - 1.1.3.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 1.1.3.1.1

- 1.1.3.1.3. Understands the rationale for performing each of the exam components listed in section 1.1.3.1.1
- 1.1.3.2. Performance indicators – Attitudes.
 - 1.1.3.2.1. Facilitates patient cooperation with the exam.
 - 1.1.3.2.2. Communicates effectively with the patient.
 - 1.1.3.2.3. Is attentive to the patient.
 - 1.1.3.2.4. Promotes a calm and reassuring atmosphere for the encounter.
 - 1.1.3.2.5. Is sensitive to the patient’s discomfort during the exam.
- 1.1.3.3. Performance indicators – Skills.
 - 1.1.3.3.1. Utilizes the correct technique for performing each of the components of a problem-focused vascular examination listed in section 1.1.3.1.1
 - 1.1.3.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 1.1.3.1.1 when performed upon a patient.
 - 1.1.3.3.3. Utilizes appropriate vascular exam components indicated by patient’s chief complaint.
 - 1.1.3.3.4. Performs the problem-focused vascular exam in an appropriate period of time.

1.1.4. dermatologic examination.

- 1.1.4.1. Performance indicators – Knowledge.
 - 1.1.4.1.1. Understands the correct technique for performing the following components of a problem-focused dermatologic examination:
 - 1.1.4.1.1.1. Observation of skin tone, color, texture, moisture, temperature, turgor, and integrity.
 - 1.1.4.1.1.2. Observation of hair distribution.
 - 1.1.4.1.1.3. Observation of nail shape, color, thickness, orientation, and integrity.
 - 1.1.4.1.1.4. Observation of characteristics (qualitative and quantitative) of potential neoplastic skin changes.
 - 1.1.4.1.1.5. Observation of characteristics (qualitative and quantitative) of potential ulcerative skin changes.
 - 1.1.4.1.1.6. Observation of qualities and characteristics of potential infectious (viral, bacterial, fungal) skin changes.
 - 1.1.4.1.1.7. Observation of qualities and characteristics of skin changes associated with metabolic/systemic diseases.
 - 1.1.4.1.1.8. Observation of qualities and characteristics of skin changes associated with trauma.
 - 1.1.4.1.1.9. Observation of qualities and characteristics of primary skin disorders.
 - 1.1.4.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 1.1.4.1.1
 - 1.1.4.1.3. Understands the rationale for performing each of the exam components listed in section 1.1.4.1.1
- 1.1.4.2. Performance indicators – Attitudes.
 - 1.1.4.2.1. Facilitates patient cooperation with the exam.

- 1.1.4.2.2. Communicates effectively with the patient.
- 1.1.4.2.3. Is attentive to the patient.
- 1.1.4.2.4. Promotes a calm and reassuring atmosphere for the encounter.
- 1.1.4.2.5. Is sensitive to the patient's discomfort during the exam.
- 1.1.4.3. Performance indicators – Skills.
 - 1.1.4.3.1. Utilizes the correct technique for performing each of the components of a problem-focused dermatologic examination listed in section 1.1.4.1.1
 - 1.1.4.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 1.1.4.1.1 when performed upon a patient.
 - 1.1.4.3.3. Utilizes appropriate dermatologic exam components indicated by patient's chief complaint.
 - 1.1.4.3.4. Performs the problem-focused dermatologic exam in an appropriate period of time.

1.1.5. musculoskeletal examination.

- 1.1.5.1. Performance indicators – Knowledge.
 - 1.1.5.1.1. Understands the correct technique for performing the following components of a problem-focused musculoskeletal examination:
 - 1.1.5.1.1.1. Qualitative and/or quantitative evaluation of positional/structural alignment, including:
 - 1.1.5.1.1.1.1. Spine
 - 1.1.5.1.1.1.2. Limb length
 - 1.1.5.1.1.1.3. Pelvis
 - 1.1.5.1.1.1.4. Hip
 - 1.1.5.1.1.1.5. Femur
 - 1.1.5.1.1.1.6. Knee
 - 1.1.5.1.1.1.7. Tibia
 - 1.1.5.1.1.1.8. Ankle
 - 1.1.5.1.1.1.9. Hindfoot
 - 1.1.5.1.1.1.10. Midfoot
 - 1.1.5.1.1.1.11. Resting calcaneal stance position
 - 1.1.5.1.1.1.12. Forefoot to rearfoot alignment
 - 1.1.5.1.1.1.13. Forefoot – rays, MTPJs, toes
 - 1.1.5.1.1.2. Qualitative determination of range, axis, and quality of motion of the following joints:
 - 1.1.5.1.1.2.1. Hip
 - 1.1.5.1.1.2.2. Knee
 - 1.1.5.1.1.2.3. Ankle
 - 1.1.5.1.1.2.4. Subtalar
 - 1.1.5.1.1.2.5. Midtarsal (long and oblique axis)
 - 1.1.5.1.1.2.6. First ray
 - 1.1.5.1.1.2.7. Fifth ray
 - 1.1.5.1.1.2.8. Metatarsophalangeal
 - 1.1.5.1.1.2.9. Interphalangeal

- 1.1.5.1.1.3. Quantitative measurement of range of motion of the following joints:
 - 1.1.5.1.1.3.1. Hip
 - 1.1.5.1.1.3.2. Knee
 - 1.1.5.1.1.3.3. Ankle
 - 1.1.5.1.1.3.4. Subtalar
 - 1.1.5.1.1.3.5. First ray
 - 1.1.5.1.1.3.6. Fifth ray
 - 1.1.5.1.1.3.7. First Metatarsophalangeal
- 1.1.5.1.1.4. Understands characteristics of normal and abnormal gait, including alignment, coordination, cadence, compensation, and phasic muscle activity.
- 1.1.5.1.1.5. Understands characteristics of and differentiates abnormal gait patterns including, but not limited to:
 - 1.1.5.1.1.5.1. Trendelenberg gait
 - 1.1.5.1.1.5.2. Steppage gait / Dropfoot
 - 1.1.5.1.1.5.3. Scissors gait (bilateral spastic paresis)
 - 1.1.5.1.1.5.4. Spastic hemiparesis/Other spastic gait forms
 - 1.1.5.1.1.5.5. Sensory Ataxia
 - 1.1.5.1.1.5.6. Cerebellar Ataxia
 - 1.1.5.1.1.5.7. Parkinsonism
 - 1.1.5.1.1.5.8. Other gait forms
- 1.1.5.1.1.6. Palpation of musculoskeletal structures, including specific bone, tendon, and joint landmarks.
- 1.1.5.1.1.7. Special Tests including:
 - 1.1.5.1.1.7.1. heel raise test
 - 1.1.5.1.1.7.2. Coleman block or book test
 - 1.1.5.1.1.7.3. Simmond's test
 - 1.1.5.1.1.7.4. Hubscher maneuver
 - 1.1.5.1.1.7.5. provocation tests for intermetatarsal neuroma (Mulder's sign)
 - 1.1.5.1.1.7.6. Kelikian push-up test
 - 1.1.5.1.1.7.7. dynamic tests of strength (heel walking, toe walking, see also section 1.1.2.1.1.3)
 - 1.1.5.1.1.7.8. evaluation of hip derangement
 - 1.1.5.1.1.7.8.1. hip dislocatability tests
 - 1.1.5.1.1.7.8.2. Ortollani's sign
 - 1.1.5.1.1.7.8.3. Anchor sign
 - 1.1.5.1.1.7.8.4. Barlow's sign
 - 1.1.5.1.1.7.8.5. Galeazzi's sign
 - 1.1.5.1.1.7.8.6. Telescoping
 - 1.1.5.1.1.7.9. straight leg raise test
 - 1.1.5.1.1.7.10. Braggard's test
 - 1.1.5.1.1.7.11. Faber (Patrick) test
 - 1.1.5.1.1.7.12. Femoral stretch test (Ely test)
 - 1.1.5.1.1.7.13. Adams test

- 1.1.5.1.1.7.14. Trendelenberg test
- 1.1.5.1.1.7.15. Ober test
- 1.1.5.1.1.7.16. Thomas test
- 1.1.5.1.1.7.17. LaSeagues test
- 1.1.5.1.1.7.18. Modified LaSeagues test
- 1.1.5.1.1.7.19. FLIP test (seated LaSeagues)
- 1.1.5.1.1.7.20. Neri's bowing
- 1.1.5.1.1.7.21. Bowstring sign
- 1.1.5.1.1.7.22. Kempfi's test
- 1.1.5.1.1.7.23. Piriformis stretch
- 1.1.5.1.1.7.24. Nachlas prone test
- 1.1.5.1.1.7.25. Yeoman's test
- 1.1.5.1.1.7.26. Gaenslen's test
- 1.1.5.1.1.7.27. evaluation of internal knee derangement
 - 1.1.5.1.1.7.27.1. Collateral stress test (varus/valgus)
 - 1.1.5.1.1.7.27.2. Lachman stress test (anterior)
 - 1.1.5.1.1.7.27.3. Patellar tracking test/Q angle
 - 1.1.5.1.1.7.27.4. McMurray test
 - 1.1.5.1.1.7.27.5. Apley's test
 - 1.1.5.1.1.7.27.6. Clark's test
 - 1.1.5.1.1.7.27.7. Femoral grinding test
- 1.1.5.1.1.7.28. evaluation of ankle derangement
 - 1.1.5.1.1.7.28.1. Cotton test
 - 1.1.5.1.1.7.28.2. Squeeze test
 - 1.1.5.1.1.7.28.3. Talar tilt test
 - 1.1.5.1.1.7.28.4. Anterior drawer test
 - 1.1.5.1.1.7.28.5. Silverskiold test
- 1.1.5.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 1.1.5.1.1
- 1.1.5.1.3. Understands the rationale for performing each of the exam components listed in section 1.1.5.1.1
- 1.1.5.2. Performance indicators – Attitudes.
 - 1.1.5.2.1. Facilitates patient cooperation with the exam.
 - 1.1.5.2.2. Communicates effectively with the patient.
 - 1.1.5.2.3. Is attentive to the patient.
 - 1.1.5.2.4. Promotes a calm and reassuring atmosphere for the encounter.
 - 1.1.5.2.5. Is sensitive to the patient's discomfort during the exam.
- 1.1.5.3. Performance indicators – Skills.
 - 1.1.5.3.1. Utilizes the correct technique for performing each of the components of a problem-focused musculoskeletal examination listed in section 1.1.5.1.1
 - 1.1.5.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 1.1.5.1.1 when performed upon a patient.
 - 1.1.5.3.3. Utilizes appropriate musculoskeletal exam components indicated by patient's chief complaint.

1.1.5.3.4. Performs the problem-focused musculoskeletal exam in an appropriate period of time.

1.2. Perform (and/or order) and interpret appropriate diagnostic studies, including:

1.2.1. Medical imaging, including:

1.2.1.1. Plain radiography.

1.2.1.1.1. Performance indicators – knowledge.

1.2.1.1.1.1. Understands the general principles of radiation physics and safety.

1.2.1.1.1.2. Understands the correct technique for both weight-bearing and non weight-bearing plain radiographic views, including:

1.2.1.1.1.2.1. The Infant Foot

1.2.1.1.1.2.1.1. AP View

1.2.1.1.1.2.1.2. Lateral View

1.2.1.1.1.2.1.3. Oblique View(s)

1.2.1.1.1.2.1.4. Club Foot – Kite Method

1.2.1.1.1.2.2. The Foot

1.2.1.1.1.2.2.1. AP View

1.2.1.1.1.2.2.2. Oblique View

1.2.1.1.1.2.2.2.1. Medial Oblique View

1.2.1.1.1.2.2.2.2. Lateral Oblique View

1.2.1.1.1.2.2.3. Lateral View

1.2.1.1.1.2.2.4. Phalangeal View

1.2.1.1.1.2.2.5. Oblique Phalangeal View

1.2.1.1.1.2.2.6. Lateral Phalangeal View

1.2.1.1.1.2.2.7. Axial Calcaneal View

1.2.1.1.1.2.2.8. Lateral Calcaneal View

1.2.1.1.1.2.2.9. Harris and Beath Projection

1.2.1.1.1.2.2.10. Specialized Subtalar Joint Views (trauma)

1.2.1.1.1.2.2.10.1. Isherwood

1.2.1.1.1.2.2.10.2. Broden's

1.2.1.1.1.2.2.11. Axial Sesamoid View

1.2.1.1.1.2.2.12. Axial Forefoot View

1.2.1.1.1.2.3. The Ankle

1.2.1.1.1.2.3.1. AP View

1.2.1.1.1.2.3.2. AP Mortise View

1.2.1.1.1.2.3.3. Oblique View (45°)

1.2.1.1.1.2.3.4. Lateral View

1.2.1.1.1.2.4. The Leg

1.2.1.1.1.2.4.1. AP View

1.2.1.1.1.2.4.2. Oblique View

1.2.1.1.1.2.4.3. Lateral View

1.2.1.1.1.2.5. The Knee

1.2.1.1.1.2.5.1. AP View

1.2.1.1.1.2.5.2. Oblique View

1.2.1.1.1.2.5.3. Lateral View

1.2.1.1.1.2.6. The Knee – Intercondylar fossa

- 1.2.1.1.1.2.6.1. PA axial
- 1.2.1.1.1.2.7. Patella and Patellofemoral joint
 - 1.2.1.1.1.2.7.1. PA View
 - 1.2.1.1.1.2.7.2. Lateral
 - 1.2.1.1.1.2.7.3. Tangential – Merchant method
 - 1.2.1.1.1.2.7.4. Tangential – inferosuperior projection
 - 1.2.1.1.1.2.7.5. Oblique
- 1.2.1.1.1.2.8. The Femur
 - 1.2.1.1.1.2.8.1. AP View
 - 1.2.1.1.1.2.8.2. Lateral
- 1.2.1.1.1.2.9. The Hip
 - 1.2.1.1.1.2.9.1. AP - Pelvis
 - 1.2.1.1.1.2.9.2. AP – Hip
 - 1.2.1.1.1.2.9.3. Unilateral frog leg
 - 1.2.1.1.1.2.9.4. Axiolateral View
 - 1.2.1.1.1.2.9.5. The Pediatric Hip
 - 1.2.1.1.1.2.9.5.1. AP View
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 - 1.2.1.1.1.2.10.1. AP View
 - 1.2.1.1.1.2.10.2. AP bilateral frog leg
 - 1.2.1.1.1.2.10.3. AP axial View
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 - 1.2.1.1.1.2.12.2. AP axial coccyx
 - 1.2.1.1.1.2.12.3. Lateral sacrum
 - 1.2.1.1.1.2.12.4. Lateral coccyx
- 1.2.1.1.1.2.13. The Scoliosis and Spinal Fusion Series
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 - 1.2.1.1.1.2.13.4. Lateral – hyperextension and flexion views
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- 1.2.1.1.1.2.15. Scanogram/Limb Length Measurement Views
- 1.2.1.1.1.3. Understands normal and abnormal findings that may present on plain radiographic views listed in Section 1.2.1.1.1.2
- 1.2.1.1.1.4. Understands the rationale for ordering the plain radiographic views listed in section 1.2.1.1.1.2.
- 1.2.1.1.2. Performance indicators – attitudes.
 - 1.2.1.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.1.1.3. Performance indicators – skills.
 - 1.2.1.1.3.1. Utilizes the correct technique for performing each of the views section 1.2.1.1.1.2.
 - 1.2.1.1.3.2. Reads plain radiographic films listed in section 1.2.1.1.2. in a logical, orderly, and sequential method
 - 1.2.1.1.3.3. Recognizes (correctly interprets) the normal or abnormal findings on each view of section 1.2.1.1.1.2.
 - 1.2.1.1.3.4. Selects appropriate plain film views as indicated by patient's chief complaint.
 - 1.2.1.1.3.5. Selection of plain film views fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.1.3.6. Recognizes when plain film findings indicate further history, physical exam, diagnostic studies, or consultation.
 - 1.2.1.1.3.7. Performs the exam in an appropriate period of time.
- 1.2.1.2. Radiographic contrast studies.
 - 1.2.1.2.1. Performance indicators – knowledge.
 - 1.2.1.2.1.1. Understands the general principles of radiation physics and safety.
 - 1.2.1.2.1.2. Understands the pharmacology of various available radiographic contrast materials.
 - 1.2.1.2.1.3. Understands the contraindications of and co-morbidity factors for various available radiographic contrast materials.
 - 1.2.1.2.1.4. Understands the correct technique for radiographic contrast studies, including:
 - 1.2.1.2.1.4.1. Arthrography.
 - 1.2.1.2.1.4.2. Tenography.
 - 1.2.1.2.1.4.3. Sinography.

- 1.2.1.2.1.4.4. Bursography.
- 1.2.1.2.1.4.5. Contrast-enhanced CT
- 1.2.1.2.1.4.6. Contrast-enhanced MRI
- 1.2.1.2.1.5. Understands normal and abnormal findings that may present on the radiographic contrast studies in section 1.2.1.2.1.4.
- 1.2.1.2.1.6. Understands the rationale for ordering the radiographic contrast studies in section 1.2.1.2.1.4.
- 1.2.1.2.2. Performance indicators – attitudes.
 - 1.2.1.2.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.1.2.3. Performance indicators – skills.
 - 1.2.1.2.3.1. Utilizes the correct technique for performing each of the studies in section 1.2.1.2.1.4.
 - 1.2.1.2.3.2. Reads radiographic contrast study films listed in section 1.2.1.2.1.4 in a logical, orderly, and sequential method
 - 1.2.1.2.3.3. Recognizes (correctly interprets) the normal or abnormal findings on each study in section 1.2.1.2.1.4.
 - 1.2.1.2.3.4. Selects appropriate radiographic contrast study indicated by patient’s chief complaint.
 - 1.2.1.2.3.5. Selection of radiographic contrast study fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.2.3.6. Recognizes when radiographic contrast study findings indicate further history, physical exam, diagnostic studies, or consultation.
 - 1.2.1.2.3.7. Performs the exam in an appropriate period of time.
- 1.2.1.3. Stress radiography.
 - 1.2.1.3.1. Performance indicators – knowledge.
 - 1.2.1.3.1.1. Understands the general principles of radiation physics and safety.
 - 1.2.1.3.1.2. Understands the correct technique for stress radiography, including:
 - 1.2.1.3.1.2.1. Manual ankle anterior drawer technique.
 - 1.2.1.3.1.2.2. Manual ankle varus/valgus stress technique.
 - 1.2.1.3.1.2.3. Stress ankle plantarflexion and dorsiflexion technique.
 - 1.2.1.3.1.2.4. Lisfranc’s joint stress technique.
 - 1.2.1.3.1.2.5. Mechanical stress devices (Telos) and techniques.
 - 1.2.1.3.1.2.6. Ankle syndesmotomic stress technique.
 - 1.2.1.3.1.2.7. Other lower extremity stress techniques.
 - 1.2.1.3.1.3. Understands normal and abnormal findings that may present on the stress radiography tests in section 1.2.1.3.1.2.
 - 1.2.1.3.1.4. Understands the rationale for ordering the stress radiography tests in section 1.2.1.3.1.2
 - 1.2.1.3.2. Performance indicators – attitudes.
 - 1.2.1.3.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.3.3. Performance indicators – skills

- 1.2.1.3.3.1. Utilizes the correct technique for performing each of the studies in section 1.2.1.3.1.2.
- 1.2.1.3.3.2. Reads stress radiograph films listed in section 1.2.1.3.1.2 in a logical, orderly, and sequential method
- 1.2.1.3.3.3. Recognizes (correctly interprets) the normal or abnormal findings on each study in section 1.2.1.3.1.2.
- 1.2.1.3.3.4. Selects appropriate stress radiography test indicated by patient's chief complaint.
- 1.2.1.3.3.5. Selection of stress radiography tests fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.1.3.3.6. Recognizes when stress radiography test findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.1.3.3.7. Performs the exam in an appropriate period of time.
- 1.2.1.4. Fluoroscopy.
 - 1.2.1.4.1. Performance indicators – knowledge.
 - 1.2.1.4.1.1. Understands the general principles of radiation physics and safety.
 - 1.2.1.4.1.2. Understands the correct technique for fluoroscopy, including:
 - 1.2.1.4.1.2.1. Static.
 - 1.2.1.4.1.2.2. Dynamic (real time).
 - 1.2.1.4.1.3. Understands normal and abnormal findings that may present on fluoroscopy.
 - 1.2.1.4.1.4. Understands the rationale for performing fluoroscopy.
 - 1.2.1.4.2. Performance indicators – attitudes.
 - 1.2.1.4.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.4.3. Performance indicators – skills
 - 1.2.1.4.3.1. Utilizes the correct technique for performing fluoroscopy
 - 1.2.1.4.3.2. Reads/evaluates dynamic and static fluoroscopic images in a logical, orderly, and sequential method.
 - 1.2.1.4.3.3. Recognizes (correctly interprets) the normal or abnormal findings on fluoroscopy.
 - 1.2.1.4.3.4. Selection of fluoroscopy is indicated by patient's chief complaint.
 - 1.2.1.4.3.5. Selection of fluoroscopy fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.4.3.6. Recognizes when fluoroscopy findings indicate further history, physical exam, diagnostic studies, or consultation.
 - 1.2.1.4.3.7. Performs the exam in an appropriate period of time.
- 1.2.1.5. Nuclear medicine imaging.
 - 1.2.1.5.1. Performance indicators – knowledge.
 - 1.2.1.5.1.1. Understands the general technical aspects of nuclear medicine imaging studies, including:
 - 1.2.1.5.1.1.1. Technetium99 bone scan (three phase / four phase).

- 1.2.1.5.1.1.2. HMPAO scan (Ceretek).
- 1.2.1.5.1.1.3. Gallium scan.
- 1.2.1.5.1.1.4. Indium WBC scan.
- 1.2.1.5.1.2. Understands normal and abnormal findings that may present on the nuclear medicine imaging in section 1.2.1.5.1.1.
- 1.2.1.5.1.3. Understands the rationale for ordering the nuclear medicine imaging in section 1.2.1.5.1.1.
- 1.2.1.5.2. Performance indicators – attitudes.
 - 1.2.1.5.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.1.5.3. Performance indicators – skills.
 - 1.2.1.5.3.1. Reads nuclear medicine imaging listed in section 1.2.1.5.1.1. in a logical, orderly, and sequential method
 - 1.2.1.5.3.2. Recognizes (correctly interprets) the normal or abnormal findings on the nuclear medicine imaging in section 1.2.1.5.1.1.
 - 1.2.1.5.3.3. Selects appropriate nuclear medicine imaging as indicated by patient’s chief complaint.
 - 1.2.1.5.3.4. Selection of nuclear medicine imaging fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.5.3.5. Recognizes when nuclear medicine imaging findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.1.6. MRI.
 - 1.2.1.6.1. Performance indicators – knowledge.
 - 1.2.1.6.1.1. Understands the general technical aspects of MR imaging studies, including:
 - 1.2.1.6.1.1.1. Pulse sequences and their effects on image.
 - 1.2.1.6.1.1.2. Contrast techniques.
 - 1.2.1.6.1.1.3. Slice thickness.
 - 1.2.1.6.1.1.4. Contraindications.
 - 1.2.1.6.1.1.5. Available vs. appropriate planes of imaging.
 - 1.2.1.6.1.2. Understands normal and abnormal findings that may present on MR imaging, including normal sectional anatomy.
 - 1.2.1.6.1.3. Understands the rationale for ordering MR imaging.
 - 1.2.1.6.2. Performance indicators – attitudes.
 - 1.2.1.6.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.6.3. Performance indicators – skills
 - 1.2.1.6.3.1. Reads MRI imaging studies in a logical, orderly, and sequential method
 - 1.2.1.6.3.2. Recognizes (correctly interprets) the normal or abnormal findings on MR imaging.
 - 1.2.1.6.3.3. Selection of MR imaging is indicated by patient’s chief complaint.

- 1.2.1.6.3.4. Selection of MR imaging fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.1.6.3.5. Recognizes when MR imaging findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.1.7. CT.
 - 1.2.1.7.1. Performance indicators – knowledge.
 - 1.2.1.7.1.1. Understands the general technical aspects of CT imaging studies, including:
 - 1.2.1.7.1.1.1. Slice thickness.
 - 1.2.1.7.1.1.2. Available vs. appropriate planes of imaging.
 - 1.2.1.7.1.1.3. Three-dimensional CT reconstruction.
 - 1.2.1.7.1.2. Understands normal and abnormal findings that may present on CT imaging, including normal sectional anatomy.
 - 1.2.1.7.1.3. Understands the rationale for ordering CT imaging.
 - 1.2.1.7.2. Performance indicators – attitudes.
 - 1.2.1.7.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.7.3. Performance indicators – skills.
 - 1.2.1.7.3.1. Reads CT scan in a logical, orderly, and sequential method
 - 1.2.1.7.3.2. Recognizes (correctly interprets) the normal or abnormal findings on CT imaging.
 - 1.2.1.7.3.3. Selection of CT imaging is indicated by patient’s chief complaint.
 - 1.2.1.7.3.4. Selection of CT imaging fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.7.3.5. Recognizes when CT imaging findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.1.8. Diagnostic ultrasound.
 - 1.2.1.8.1. Performance indicators – knowledge.
 - 1.2.1.8.1.1. Understands the general technical aspects of diagnostic ultrasound studies, including:
 - 1.2.1.8.1.1.1. Duplex ultrasound (DVT).
 - 1.2.1.8.1.1.2. Soft tissue ultrasound (tendon pathology, foreign body).
 - 1.2.1.8.1.2. Understands normal and abnormal findings that may present on diagnostic ultrasound.
 - 1.2.1.8.1.3. Understands the rationale for ordering diagnostic ultrasound.
 - 1.2.1.8.2. Performance indicators – attitudes.
 - 1.2.1.8.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.8.3. Performance indicators – skills.
 - 1.2.1.8.3.1. Reads static and/or dynamic ultrasound study in a logical, orderly, and sequential method
 - 1.2.1.8.3.2. Recognizes (correctly interprets) the normal or abnormal findings on diagnostic ultrasound.

- 1.2.1.8.3.3. Selection of diagnostic ultrasound is indicated by patient's chief complaint.
- 1.2.1.8.3.4. Selection of diagnostic ultrasound fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.1.8.3.5. Recognizes when diagnostic ultrasound findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.1.9. vascular imaging
 - 1.2.1.9.1. Performance indicators – knowledge.
 - 1.2.1.9.1.1. Understands the pharmacology of various available radiographic contrast materials.
 - 1.2.1.9.1.2. Understands the contraindications of and co-morbidity factors for various available radiographic contrast materials.
 - 1.2.1.9.1.3. Understands the correct technique for vascular imaging studies, including:
 - 1.2.1.9.1.3.1. Contrast arteriography.
 - 1.2.1.9.1.3.2. Contrast venography.
 - 1.2.1.9.1.3.3. MRI angiography.
 - 1.2.1.9.1.3.4. digital subtraction angiography.
 - 1.2.1.9.1.4. Understands normal and abnormal findings that may present on the vascular imaging studies in section 1.2.1.9.1.3.
 - 1.2.1.9.1.5. Understands the rationale for ordering the vascular imaging studies in section 1.2.1.9.1.3.
 - 1.2.1.9.2. Performance indicators – attitudes.
 - 1.2.1.9.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.1.9.3. Performance indicators – skills.
 - 1.2.1.9.3.1. Reads vascular imaging studies listed in section 1.2.1.9.1.3 in a logical, orderly, and sequential method
 - 1.2.1.9.3.2. Recognizes (correctly interprets) the normal or abnormal findings on each study in section 1.2.1.9.1.3.
 - 1.2.1.9.3.3. Selects appropriate vascular imaging study indicated by patient's chief complaint and clinical presentation.
 - 1.2.1.9.3.4. Selection of vascular imaging study fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.1.9.3.5. Recognizes when vascular imaging study findings indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.2. laboratory tests, including:
 - 1.2.2.1. hematology.
 - 1.2.2.1.1. Performance indicators – knowledge.
 - 1.2.2.1.1.1. Understands the correct technique for venipuncture and specimen storage and processing.
 - 1.2.2.1.1.2. Understands normal and abnormal hematologic values, including:
 - 1.2.2.1.1.2.1. Hemoglobin

- 1.2.2.1.1.2.2. Hematocrit
- 1.2.2.1.1.2.3. CBC
- 1.2.2.1.1.2.4. Differential
- 1.2.2.1.1.2.5. Platelet Count
- 1.2.2.1.1.2.6. Reticulocyte Count
- 1.2.2.1.1.2.7. Westergren Sedimentation Rate
- 1.2.2.1.1.2.8. CD4/CD8
- 1.2.2.1.1.2.9. Other
- 1.2.2.1.1.3. Understands the rationale for ordering the tests listed in section 1.2.2.1.1.2.
- 1.2.2.1.2. Performance indicators – attitudes.
 - 1.2.2.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.1.3. Performance indicators – skills.
 - 1.2.2.1.3.1. Utilizes the correct technique for performing venipuncture.
 - 1.2.2.1.3.2. Recognizes (correctly interprets) the normal or abnormal test values for each test in section 1.2.2.1.1.2.
 - 1.2.2.1.3.3. Selects appropriate test(s) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.2.1.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.2.1.3.5. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
- 1.2.2.2. serology/immunology.
 - 1.2.2.2.1. Performance indicators – knowledge.
 - 1.2.2.2.1.1. Understands the correct technique for venipuncture and specimen storage and processing.
 - 1.2.2.2.1.2. Understands normal and abnormal serology/immunology values, including:
 - 1.2.2.2.1.2.1. RPR
 - 1.2.2.2.1.2.2. VDRL
 - 1.2.2.2.1.2.3. HIV screen
 - 1.2.2.2.1.2.4. Mono Screen
 - 1.2.2.2.1.2.5. Serum Pregnancy
 - 1.2.2.2.1.2.6. ANA
 - 1.2.2.2.1.2.7. Rheumatoid Factor
 - 1.2.2.2.1.2.8. Blood Group, Rh
 - 1.2.2.2.1.2.9. Anitbody Screen
 - 1.2.2.2.1.2.10. Direct Coombs
 - 1.2.2.2.1.2.11. Hepatitis A IgM (acute)
 - 1.2.2.2.1.2.12. Hepatitis A IgG (immunity)
 - 1.2.2.2.1.2.13. Hepatitis B Surface Antigen
 - 1.2.2.2.1.2.14. Hepatitis B Core Antibody
 - 1.2.2.2.1.2.15. Hepatitis B Surface Antibody
 - 1.2.2.2.1.2.16. Hepatitis C Antibody

- 1.2.2.2.1.2.17. Rubella
- 1.2.2.2.1.2.18. Rubeola
- 1.2.2.2.1.2.19. Varicella
- 1.2.2.2.1.2.20. CMV
- 1.2.2.2.1.2.21. H. pylori
- 1.2.2.2.1.2.22. Mumps
- 1.2.2.2.1.2.23. Toxoplasma
- 1.2.2.2.1.2.24. Lyme
- 1.2.2.2.1.2.25. Cryoglobulins
- 1.2.2.2.1.2.26. HLA B27
- 1.2.2.2.1.2.27. C reactive protein
- 1.2.2.2.1.2.28. Serum Complement
- 1.2.2.2.1.2.29. Other
- 1.2.2.2.1.3. Understands the rationale for ordering the tests listed in section 1.2.2.2.1.2.
- 1.2.2.2.2. Performance indicators – attitudes.
 - 1.2.2.2.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.2.3. Performance indicators – skills.
 - 1.2.2.2.3.1. Utilizes the correct technique for performing venipuncture.
 - 1.2.2.2.3.2. Recognizes (correctly interprets) the normal or abnormal test values for each test in section 1.2.2.2.1.2.
 - 1.2.2.2.3.3. Selects appropriate test(s) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.2.2.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.2.2.3.5. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation or repeat/serial analysis.
- 1.2.2.3. blood chemistries.
 - 1.2.2.3.1. Performance indicators – knowledge.
 - 1.2.2.3.1.1. Understands the correct technique for venipuncture and specimen storage and processing.
 - 1.2.2.3.1.2. Understands normal and abnormal blood chemistry values, including:
 - 1.2.2.3.1.2.1. Sodium
 - 1.2.2.3.1.2.2. Potassium
 - 1.2.2.3.1.2.3. Chloride
 - 1.2.2.3.1.2.4. Carbon Dioxide
 - 1.2.2.3.1.2.5. Magnesium
 - 1.2.2.3.1.2.6. Creatinine
 - 1.2.2.3.1.2.7. BUN
 - 1.2.2.3.1.2.8. Blood Glucose (random and fasting)
 - 1.2.2.3.1.2.9. Hemoglobin A1C
 - 1.2.2.3.1.2.10. Fructosamine
 - 1.2.2.3.1.2.11. Calcium

- 1.2.2.3.1.2.12. Phosphorous
- 1.2.2.3.1.2.13. Uric Acid
- 1.2.2.3.1.2.14. Total Bilirubin
- 1.2.2.3.1.2.15. Serum Protein Electrophoresis
- 1.2.2.3.1.2.16. Ferritin
- 1.2.2.3.1.2.17. Iron
- 1.2.2.3.1.2.18. Total Iron Binding Capacity
- 1.2.2.3.1.2.19. Hemoglobin Electrophoresis
- 1.2.2.3.1.2.20. T4 / FTI
- 1.2.2.3.1.2.21. TSH
- 1.2.2.3.1.2.22. Alkaline Phosphatase
- 1.2.2.3.1.2.23. AST (SGOT)
- 1.2.2.3.1.2.24. ALT (SGPT)
- 1.2.2.3.1.2.25. Albumin
- 1.2.2.3.1.2.26. PSA
- 1.2.2.3.1.2.27. Acid Phosphatase
- 1.2.2.3.1.2.28. Creatine Kinase (CK or CPK)
- 1.2.2.3.1.2.29. CKMB – cardiac
- 1.2.2.3.1.2.30. Amylase
- 1.2.2.3.1.2.31. Cholesterol
- 1.2.2.3.1.2.32. HDL
- 1.2.2.3.1.2.33. LDL
- 1.2.2.3.1.2.34. Triglycerides
- 1.2.2.3.1.2.35. Acetone
- 1.2.2.3.1.2.36. Vitamin B12
- 1.2.2.3.1.2.37. Folate
- 1.2.2.3.1.2.38. ACTH challenge
- 1.2.2.3.1.2.39. Cortisol
- 1.2.2.3.1.2.40. Other
- 1.2.2.3.1.3. Understands the rationale for ordering the tests listed in section 1.2.2.3.1.2.
- 1.2.2.3.2. Performance indicators – attitudes.
 - 1.2.2.3.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.3.3. Performance indicators – skills.
 - 1.2.2.3.3.1. Utilizes the correct technique for performing venipuncture.
 - 1.2.2.3.3.2. Recognizes (correctly interprets) the normal or abnormal test values for each test in section 1.2.2.3.1.2.
 - 1.2.2.3.3.3. Selects appropriate test(s) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.2.3.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.2.3.3.5. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
- 1.2.2.4. toxicology / drug screens

- 1.2.2.4.1. Performance indicators – knowledge.
 - 1.2.2.4.1.1. Understands normal and abnormal toxicology and drug screen findings and values, including:
 - 1.2.2.4.1.1.1. Vancomycin
 - 1.2.2.4.1.1.2. Gentamicin
 - 1.2.2.4.1.1.3. Theophylline
 - 1.2.2.4.1.1.4. Phenytoin
 - 1.2.2.4.1.1.5. Carbamazepine
 - 1.2.2.4.1.1.6. Digoxin
 - 1.2.2.4.1.1.7. Lithium
 - 1.2.2.4.1.1.8. Valproic Acid
 - 1.2.2.4.1.1.9. Acetaminophen
 - 1.2.2.4.1.1.10. Salicylate
 - 1.2.2.4.1.1.11. Lead
 - 1.2.2.4.1.1.12. Alcohol
 - 1.2.2.4.1.1.13. Anabolic steroids
 - 1.2.2.4.1.1.14. Barbiturates
 - 1.2.2.4.1.1.15. Narcotics
 - 1.2.2.4.1.1.16. Sedative-Hypnotics
 - 1.2.2.4.1.1.17. Cocaine
 - 1.2.2.4.1.1.18. Other illicit drugs
 - 1.2.2.4.1.2. Understands the rationale for ordering the tests listed in section 1.2.2.4.1.1
 - 1.2.2.4.1.3. Correctly interprets the normal and abnormal test findings/values for each test in section 1.2.2.4.1.1.
 - 1.2.2.4.1.4. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
 - 1.2.2.4.1.5. Understands the correct technique for venipuncture and specimen storage and processing.
- 1.2.2.4.2. Performance indicators – attitudes.
 - 1.2.2.4.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.4.3. Performance indicators – skills.
 - 1.2.2.4.3.1. Utilizes the correct technique for performing venipuncture.
 - 1.2.2.4.3.2. Recognizes normal and abnormal test values for all test ordered.
 - 1.2.2.4.3.3. Selects appropriate test(s) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.2.4.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.2.5. coagulation studies
 - 1.2.2.5.1. Performance indicators – knowledge.
 - 1.2.2.5.1.1. Understands normal and abnormal coagulation study values, including:
 - 1.2.2.5.1.1.1. Prothrombin Time

- 1.2.2.5.1.1.2. INR
- 1.2.2.5.1.1.3. Activated PTT
- 1.2.2.5.1.1.4. Bleeding Time
- 1.2.2.5.1.1.5. Fibrinogen
- 1.2.2.5.1.1.6. Fibrin Split Products
- 1.2.2.5.1.2. Understands the rationale for ordering the tests listed in section 1.2.2.5.1.1
- 1.2.2.5.1.3. Correctly interprets the normal and abnormal test findings/values for each test in section 1.2.2.5.1.1.
- 1.2.2.5.1.4. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
- 1.2.2.5.1.5. Understands the correct technique for venipuncture and specimen storage and processing.
- 1.2.2.5.2. Performance indicators – attitudes.
 - 1.2.2.5.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.5.3. Performance indicators – skills.
 - 1.2.2.5.3.1. Utilizes the correct technique for performing venipuncture.
 - 1.2.2.5.3.2. Recognizes normal and abnormal test values for all test ordered.
 - 1.2.2.5.3.3. Selects appropriate test(s) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.2.5.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.2.6. blood gases
 - 1.2.2.6.1. Performance indicators – knowledge.
 - 1.2.2.6.1.1. Understands normal and abnormal blood gas values, including:
 - 1.2.2.6.1.1.1. Arterial P O₂
 - 1.2.2.6.1.1.2. Arterial pH
 - 1.2.2.6.1.1.3. Arterial P CO₂
 - 1.2.2.6.1.1.4. Bicarbonate
 - 1.2.2.6.1.2. Understands the rationale for ordering the tests listed in section 1.2.2.6.1.1
 - 1.2.2.6.1.3. Correctly interprets the normal and abnormal test findings/values for each test in section 1.2.2.6.1.1.
 - 1.2.2.6.1.4. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
 - 1.2.2.6.1.5. Understands appropriate method for collection and processing of arterial blood gases.
 - 1.2.2.6.2. Performance indicators – attitudes.
 - 1.2.2.6.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.2.6.3. Performance indicators – skills.
 - 1.2.2.6.3.1. Appropriately procures arterial blood gas specimen.

- 1.2.2.6.3.2. Recognizes normal and abnormal test values for all test ordered.
- 1.2.2.6.3.3. Selects appropriate test(s) as indicated by patient's chief complaint and clinical findings.
- 1.2.2.6.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.2.7. microbiology.
 - 1.2.2.7.1. Performance indicators – knowledge.
 - 1.2.2.7.1.1. Understands the technique for performing:
 - 1.2.2.7.1.1.1. Gram's stain
 - 1.2.2.7.1.1.2. KOH prep
 - 1.2.2.7.1.1.3. Aerobic cultures
 - 1.2.2.7.1.1.4. Anaerobic cultures
 - 1.2.2.7.1.1.5. Fungal cultures
 - 1.2.2.7.1.1.6. Acid-fast (mycobacterial) cultures
 - 1.2.2.7.1.1.7. GC cultures
 - 1.2.2.7.1.1.8. Other
 - 1.2.2.7.1.2. Can correctly interpret the results of the test listed in section 1.2.2.7.1.1.
 - 1.2.2.7.1.3. Understands the correct technique for obtaining specimens and specimen storage and processing, including:
 - 1.2.2.7.1.3.1. arthrocentesis.
 - 1.2.2.7.1.3.2. tissue biopsy (nails, soft tissue, bone).
 - 1.2.2.7.1.3.3. swabs or aspirants
 - 1.2.2.7.1.3.4. blood cultures
 - 1.2.2.7.1.3.5. stool cultures
 - 1.2.2.7.1.3.6. CSF cultures
 - 1.2.2.7.1.3.7. urine cultures
 - 1.2.2.7.1.3.8. sputum cultures
 - 1.2.2.7.1.4. Understands laboratory processing of the specimens, including:
 - 1.2.2.7.1.4.1. the identification of organisms
 - 1.2.2.7.1.4.2. the determination of organism sensitivities by Kirby-Bauer disc diffusion
 - 1.2.2.7.1.4.3. the determination of organism sensitivities to antimicrobials by minimal inhibitory concentrations
 - 1.2.2.7.1.4.4. the determination of organism sensitivities to antimicrobials by minimal bacteriocidal concentrations
 - 1.2.2.7.1.4.5. serum bacteriocidal levels.
 - 1.2.2.7.1.5. Differentiates normal flora from pathogenic microbes.
 - 1.2.2.7.1.6. Understands the common pathogens associated with specific infectious disease states (eg – post-operative, diabetic fetid foot, etc).
 - 1.2.2.7.1.7. Identifies antimicrobial resistance, based upon sensitivity results.

- 1.2.2.7.1.8. Understands the rationale for selecting specimen procurement methods listed in section 1.2.2.7.1.3.
- 1.2.2.7.1.9. Understands the rationale for ordering HIV screening.
- 1.2.2.7.2. Performance indicators – attitudes.
 - 1.2.2.7.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.2.7.3. Performance indicators – skills.
 - 1.2.2.7.3.1. Appropriately performs and reads a Gram’s stain and a KOH prep.
 - 1.2.2.7.3.2. Obtains specimens using appropriate techniques, as listed in section 1.2.2.7.1.3.
 - 1.2.2.7.3.3. Choice of specimen collection method is appropriate for the patient’s type and location of suspected infection.
 - 1.2.2.7.3.4. Correctly interprets the results of cultures and sensitivities.
 - 1.2.2.7.3.5. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.2.7.3.6. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
- 1.2.2.8. synovial fluid analysis.
 - 1.2.2.8.1. Performance indicators – knowledge.
 - 1.2.2.8.1.1. Understands the correct technique for arthrocentesis.
 - 1.2.2.8.1.2. Understands the correct technique for specimen storage and processing.
 - 1.2.2.8.1.3. Understands the various tests that can be performed on synovial fluid, including:
 - 1.2.2.8.1.3.1. Volume
 - 1.2.2.8.1.3.2. General appearance
 - 1.2.2.8.1.3.3. Viscosity
 - 1.2.2.8.1.3.4. Cells / WBCs / Neutrophils
 - 1.2.2.8.1.3.5. Crystals
 - 1.2.2.8.1.3.6. Mucin clot
 - 1.2.2.8.1.3.7. Fibrin clot
 - 1.2.2.8.1.3.8. pH
 - 1.2.2.8.1.3.9. Gram’s stain
 - 1.2.2.8.1.3.10. Culture and sensitivity
 - 1.2.2.8.1.3.11. Glucose
 - 1.2.2.8.1.3.12. Protein
 - 1.2.2.8.1.4. Understands normal and abnormal values for the tests listed in section 1.2.2.8.1.3
 - 1.2.2.8.1.5. Understands the rationale for selecting the tests listed in section 1.2.2.8.1.3.
 - 1.2.2.8.2. Performance indicators – attitudes.
 - 1.2.2.8.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.2.8.3. Performance indicators – skills.

- 1.2.2.8.3.1. Utilizes the correct technique for performing an arthrocentesis.
- 1.2.2.8.3.2. Recognizes (correctly interprets) the normal or abnormal test values for each test in section 1.2.2.8.1.3.
- 1.2.2.8.3.3. Selects appropriate test(s) as indicated by patient's chief complaint and clinical findings.
- 1.2.2.8.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.2.8.3.5. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation.
- 1.2.2.9. urinalysis
 - 1.2.2.9.1. Performance indicators – knowledge.
 - 1.2.2.9.1.1. Understands normal and abnormal urinalysis findings and values, including:
 - 1.2.2.9.1.1.1. Appearance / odor
 - 1.2.2.9.1.1.2. Dipstick analysis
 - 1.2.2.9.1.1.3. Microscopic analysis
 - 1.2.2.9.1.1.4. Urine Pregnancy
 - 1.2.2.9.1.1.5. Urine Microalbumin
 - 1.2.2.9.1.1.6. 24 hour creatinine clearance
 - 1.2.2.9.1.1.7. 24 hour uric acid
 - 1.2.2.9.1.1.8. Myoglobins
 - 1.2.2.9.1.2. Understands the rationale for ordering the tests listed in section 1.2.2.9.1.1
 - 1.2.2.9.1.3. Correctly interprets the normal and abnormal test findings/values for each test in section 1.2.2.9.1.1.
 - 1.2.2.9.1.4. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation, or repeat/serial analysis.
 - 1.2.2.9.1.5. Understands appropriate methods for collection of specimens.
 - 1.2.2.9.2. Performance indicators – attitudes.
 - 1.2.2.9.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.2.9.3. Performance indicators – skills.
 - 1.2.2.9.3.1. Recognizes normal and abnormal test values for all test ordered.
 - 1.2.2.9.3.2. Selects appropriate test(s) as indicated by patient's chief complaint and clinical findings.
 - 1.2.2.9.3.3. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
- 1.2.3. pathology, including:
 - 1.2.3.1. anatomic and cellular pathology.
 - 1.2.3.1.1. Performance indicators – knowledge.
 - 1.2.3.1.1.1. Understands the correct technique and protocols for procuring pathology specimens, including:
 - 1.2.3.1.1.1.1. Excisional biopsy

- 1.2.3.1.1.1.2. Incisional biopsy
- 1.2.3.1.1.1.3. Punch biopsy
- 1.2.3.1.1.1.4. Shave biopsy
- 1.2.3.1.1.1.5. Needle aspiration
- 1.2.3.1.1.1.6. Surgical excision
- 1.2.3.1.1.2. Understands the correct technique, protocol, and rationale for utilizing a frozen section during a surgical case.
- 1.2.3.1.1.3. Understands the correct technique and protocols for processing of pathology specimens for gross and microscopic evaluation, including: preparation of specimens, standard staining techniques, and special staining techniques
- 1.2.3.1.1.4. Understands the gross features (clinical and laboratory) of various pathologic entities. (see section 1.3 for specific entities).
- 1.2.3.1.1.5. Understands the key microscopic features of various pathologic entities. (see section 1.3 for specific entities).
- 1.2.3.1.1.6. Understands the clinical, gross pathologic, and microscopic features that differentiate benign from malignant lesions.
- 1.2.3.1.1.7. Understands the rationale for selecting each of the procurement methods listed in section 1.2.3.1.1.1.
- 1.2.3.1.2. Performance indicators – attitudes.
 - 1.2.3.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.3.1.3. Performance indicators – skills.
 - 1.2.3.1.3.1. Performs the correct technique for procuring pathology specimens, including each of the techniques listed in section 1.2.3.1.1.1.
 - 1.2.3.1.3.2. Recognizes (correctly interprets) the normal or abnormal gross features of the specimen.
 - 1.2.3.1.3.3. Utilizes appropriate specimen procurement method (including frozen section) as indicated by patient’s chief complaint and clinical findings.
 - 1.2.3.1.3.4. Selection of test(s) fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.3.1.3.5. Recognizes when test values indicate further history, physical exam, diagnostic studies, consultation.
- 1.2.4. other diagnostic studies, including:
 - 1.2.4.1. electrodiagnostic studies.
 - 1.2.4.1.1. Performance indicators – knowledge.
 - 1.2.4.1.1.1. Understands the general principles of electrodiagnostic testing including:
 - 1.2.4.1.1.1.1. nerve conduction studies – sensory and motor
 - 1.2.4.1.1.1.2. electromyogram
 - 1.2.4.1.1.1.2.1. static
 - 1.2.4.1.1.1.2.2. dynamic

- 1.2.4.1.1.2. Understands the general technical aspects of performing electrodiagnostic tests listed in 1.2.4.1.1.1.
- 1.2.4.1.1.3. Understands normal and abnormal findings that may present on electrodiagnostic testing listed in 1.2.4.1.1.1.
- 1.2.4.1.1.4. Understands the rationale for ordering the electrodiagnostic tests listed in 1.2.4.1.1.1.
- 1.2.4.1.2. Performance indicators – attitudes.
 - 1.2.4.1.1.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.4.1.2. Performance indicators – skills.
 - 1.2.4.1.2.1. Recognizes (correctly interprets) the normal or abnormal findings on each test listed in section 1.2.4.1.1.1.
 - 1.2.4.1.2.2. Selects appropriate electrodiagnostic test as indicated by patient's chief complaint.
 - 1.2.4.1.2.3. Selection of electrodiagnostic test fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.4.1.2.4. Recognizes when electrodiagnostic test results indicate further history, physical exam, diagnostic studies, or consultation.
- 1.2.4.2. non-invasive vascular studies.
 - 1.2.4.2.1. Performance indicators – knowledge.
 - 1.2.4.2.1.1. Understands the general principles of noninvasive vascular testing including:
 - 1.2.4.2.1.1.1. Arterial doppler
 - 1.2.4.2.1.1.1.1. Ankle Brachial Pressure Index
 - 1.2.4.2.1.1.1.2. Modified Exercise test of Carter
 - 1.2.4.2.1.1.2. Transcutaneous oximetry
 - 1.2.4.2.1.1.3. Thermography
 - 1.2.4.2.1.1.4. Photoplethysmography
 - 1.2.4.2.1.1.4.1. Digital blood pressure
 - 1.2.4.2.1.1.5. Volume plethysmography
 - 1.2.4.2.1.1.6. Digital Doppler
 - 1.2.4.2.1.1.7. Elevation/Dependency testing
 - 1.2.4.2.1.1.8. Five minute reactive hyperemia test
 - 1.2.4.2.1.1.9. Crossed hand thermal perception test
 - 1.2.4.2.1.1.10. Palpation of normal and abnormal pulses
 - 1.2.4.2.1.1.11. Venous Duplex study
 - 1.2.4.2.1.1.12. Subpapillary venous plexus filling time (SPVPFT)
 - 1.2.4.2.1.1.13. Perthes test
 - 1.2.4.2.1.1.14. Trendelenburg's maneuver
 - 1.2.4.2.1.1.15. Other
 - 1.2.4.2.1.2. Understands the correct technique for performing noninvasive vascular tests listed in 1.2.4.2.1.1.
 - 1.2.4.2.1.3. Understands normal and abnormal findings that may present on noninvasive vascular tests listed in 1.2.4.2.1.1.

- 1.2.4.2.1.4. Understands the rationale for ordering the noninvasive vascular tests listed in 1.2.4.2.1.1.
- 1.2.4.2.2. Performance indicators - attitudes
 - 1.2.4.2.2.1.– Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.2.4.2.3. Performance indicators – skills.
 - 1.2.4.2.3.1. Recognizes (correctly interprets) the normal or abnormal findings on each test listed in section 1.2.4.2.2.1.
 - 1.2.4.2.3.2. Selects appropriate noninvasive vascular test as indicated by patient’s chief complaint and clinical findings.
 - 1.2.4.2.3.3. Selection of noninvasive vascular test fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.4.2.3.4. Recognizes when noninvasive vascular test results indicate further history, physical exam, diagnostic studies, or consultation
- 1.2.4.3. computerized gait / force plate studies.
 - 1.2.4.3.1. Performance indicators – knowledge.
 - 1.2.4.3.1.1. Understands the general principles of computerized gait and force plate testing.
 - 1.2.4.3.1.2. Understands the correct technique for performing computerized gait and force plate studies.
 - 1.2.4.3.1.3. Understands normal and abnormal findings that may present on computerized gait and force plate studies.
 - 1.2.4.3.1.4. Understands the rationale for ordering the computerized gait and force plate studies.
 - 1.2.4.3.2. Performance indicators - attitudes
 - 1.2.4.3.2.1.– Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.4.3.3. Performance indicators – skills.
 - 1.2.4.3.3.1. Performs or orders computerized gait and force plate studies
 - 1.2.4.3.3.2. Recognizes (correctly interprets) the normal or abnormal findings.
 - 1.2.4.3.3.3. Selection of computerized gait and force plate study fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.4.3.3.4. Recognizes when computerized gait and force plate test results indicate further history, physical exam, diagnostic studies, or consultation
- 1.2.4.4. bone mineral densitometry – radiographic/ultrasonographic.
 - 1.2.4.4.1. Performance Indicators – Knowledge
 - 1.2.4.4.1.1. Understands the general principles that may present on bone mineral densitometry and ultrasonographic testing
 - 1.2.4.4.1.2. Understands normal and abnormal findings that may present on bone mineral densitometry and ultrasonographic studies
 - 1.2.4.4.1.3. Understands the rationale for ordering bone mineral densitometry and ultrasonographic studies
 - 1.2.4.4.2. Performance Indicators – Attitudes

- 1.2.4.4.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity
- 1.2.4.4.3. Performance Indicators – Skill
 - 1.2.4.4.3.1. Recognizes and correctly interprets the normal and abnormal findings
 - 1.2.4.4.3.2. Selection of bone mineral densitometry and ultrasonographic testing fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.4.4.3.3. Recognizes when bone mineral densitometry and ultrasonographic testing results indicate further history, physical exam, diagnostic studies, or consultation
- 1.2.4.5. Compartment pressure studies.
 - 1.2.4.5.1. Performance indicators – knowledge.
 - 1.2.4.5.1.1. Understands the general principles of compartment pressure studies.
 - 1.2.4.5.1.2. Understands the technique of performing compartment pressure studies, including the use of various devices.
 - 1.2.4.5.1.3. Understands normal and abnormal findings that may present on compartment pressure studies.
 - 1.2.4.5.1.4. Understands the rationale for ordering compartment pressure studies.
 - 1.2.4.5.2. Performance indicators - attitudes
 - 1.2.4.5.2.1.– Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
 - 1.2.4.5.3. Performance indicators – skills.
 - 1.2.4.5.3.1. Utilizes appropriate technique in obtaining a compartment pressure.
 - 1.2.4.5.3.2. Recognizes (correctly interprets) the normal or abnormal findings.
 - 1.2.4.5.3.3. Selection of compartment pressure studies fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.2.4.5.3.4. Recognizes when compartment pressure study results indicate further history, physical exam, diagnostic studies, consultation, or surgical intervention.
 - 1.2.4.5.3.5. Performs the test in an appropriate period of time.
- 1.3. Formulate an appropriate diagnosis and/or differential diagnosis.**
 - 1.3.1. Performance indicators – Knowledge.
 - 1.3.1.1. Understands the history, physical exam, and diagnostic study findings consistent with diagnosis of lower extremity abnormalities including diagnoses in the following tabular ICD-9 subsections. (Please refer to Index A)
 - 1.3.1.1.1. Infectious and parasitic diseases of the musculoskeletal system (001-139)
 - 1.3.1.1.2. Neoplasms (140-239)
 - 1.3.1.1.3. Endocrine, Nutritional, and Metabolic diseases and Immunity disorders (240-279)

- 1.3.1.1.4. Mental Disorders (290-319)
- 1.3.1.1.5. Diseases of the Nervous system and Sense organs
- 1.3.1.1.6. Diseases of the Circulatory System (390-459)
- 1.3.1.1.7. Diseases of the Genitourinary System (680-686)
- 1.3.1.1.8. Diseases of the Skin and Subcutaneous tissue (680-709)
- 1.3.1.1.9. Diseases of the Musculoskeletal System and Connective Tissue (710-739)
- 1.3.1.1.10. Congenital Anomalies (740-759)
- 1.3.1.1.11. Certain Conditions originating in the Perinatal period (760-779)
- 1.3.1.1.12. Symptoms, Signs, and Ill-defined Conditions (780-799)
- 1.3.1.1.13. Injury and Poisoning (800-999)
- 1.3.1.2. Understands the etiology and contributing factors for each of the lower extremity diagnoses listed in the Orthopedic ICD-9 Codes Manual
- 1.3.1.3. Understands the possible course and individual/public health implications for each of the diagnoses listed in section 1.3.1.1
- 1.3.1.4. Understands the management alternatives and urgency of management for each of the diagnoses listed in section 1.3.1.1
- 1.3.1.5. Utilizes the concept of formulating a differential diagnosis.
- 1.3.1.6. Can logically justify the diagnosis and contributing factors.
- 1.3.2. Performance Indicators-Attitudes
 - 1.3.2.1. Arrives at diagnosis using a cost-effective, logical approach
 - 1.3.2.2. Utilizes consultations to arrive at a diagnosis when appropriate
 - 1.3.2.3. Can explain the diagnosis, other possible diagnoses, contributing factors, and prognosis to the patient with compassion and appropriate terminology
- 1.3.3. Performance indicators – Skills
 - 1.3.3.1. Based upon history, physical exam, and appropriate diagnostic studies, can recognize and correctly diagnose patients with any of the diagnoses listed in section 1.3.1.1
 - 1.3.3.2. Appropriately charts most likely diagnosis, other possible diagnoses and contributing factors
 - 1.3.3.3. Reassesses and revises differential diagnosis as indicated during the course of patient evaluation and management.
- 1.4. Formulate and implement an appropriate plan of management, including:**
 - 1.4.1. appropriate non-surgical management when indicated, including:**
 - 1.4.1.1. Palliation of
 - 1.4.1.1.1. Keratotic lesions.
 - 1.4.1.1.1.1. Performance Indicators-Knowledge
 - 1.4.1.1.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this treatment.
 - 1.4.1.1.1.1.2. Understands etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc.) of the condition.
 - 1.4.1.1.1.1.3. Understands the risks and benefits of performing the treatment.

- 1.4.1.1.1.1.4. Understands the risks and benefits of not performing the treatment.
- 1.4.1.1.1.1.5. Understands the advantages/disadvantages of the treatment versus other potentially applicable treatment.
- 1.4.1.1.1.1.6. Understands the instrument and material needs for performance of the treatment.
- 1.4.1.1.1.1.7. Understands the regional anatomy.
- 1.4.1.1.1.1.8. Understands the technique involved with this treatment.
- 1.4.1.1.1.1.9. Understands the appropriate procedure for disposal of biomedical waste.
- 1.4.1.1.1.1.10. Understands universal precautions.
- 1.4.1.1.1.2. Performance Indicators-Attitudes
 - 1.4.1.1.1.2.1. Selection of this treatment is appropriate for the patient.
 - 1.4.1.1.1.2.2. Can justify the treatment selection.
 - 1.4.1.1.1.2.3. Can effectively present the treatment, alternatives, and risks to the patient.
 - 1.4.1.1.1.2.4. Recognizes clinical variations and adapts accordingly.
 - 1.4.1.1.1.2.5. Demonstrates compassion and understanding for the needs of the patient.
 - 1.4.1.1.1.2.6. Advises patient appropriate aftercare and follow-up frequency, when indicated.
- 1.4.1.1.1.3. Performance Indicators-Skills
 - 1.4.1.1.1.3.1. Utilizes proper positioning.
 - 1.4.1.1.1.3.2. Utilizes scalpel appropriately, when indicated.
 - 1.4.1.1.1.3.3. Utilizes appropriate measures for self-protection (gloves), when indicated.
 - 1.4.1.1.1.3.4. Treats iatrogenic lesions appropriately, when indicated.
 - 1.4.1.1.1.3.5. Utilizes appropriate procedure for disposal of biomedical waste.
- 1.4.1.1.2. Toenails
 - 1.4.1.1.2.1. Manual or Electric
 - 1.4.1.1.2.1.1. Performance Indicators-Knowledge
 - 1.4.1.1.2.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this treatment.
 - 1.4.1.1.2.1.1.2. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc.) of the condition.
 - 1.4.1.1.2.1.1.3. Understands the risks and benefits of performing the treatment.
 - 1.4.1.1.2.1.1.4. Understands the risks and benefits of not performing the treatment.
 - 1.4.1.1.2.1.1.5. Understands the advantages/disadvantages of the treatment versus other potentially applicable treatment.
 - 1.4.1.1.2.1.1.6. Understands the instrument and material needs for performance of the treatment.

- 1.4.1.1.2.1.1.7. Understands the regional anatomy.
- 1.4.1.1.2.1.1.8. Understands the technique involved with this treatment.
- 1.4.1.1.2.1.1.9. Understands the appropriate procedure for disposal of biomedical waste.
- 1.4.1.1.2.1.1.10. Understands measures for protection against inhalation of airborne particles.
- 1.4.1.1.2.1.2. Performance Indicators-Attitudes
 - 1.4.1.1.2.1.2.1. Selection of this treatment is appropriate for the patient.
 - 1.4.1.1.2.1.2.2. Can justify the treatment selection.
 - 1.4.1.1.2.1.2.3. Can effectively present the treatment, alternatives, risks to the patient.
 - 1.4.1.1.2.1.2.4. Recognizes clinical variations and adapts accordingly.
 - 1.4.1.1.2.1.2.5. Demonstrates compassion and understanding for the needs of the patient.
 - 1.4.1.1.2.1.2.6. Advises patient appropriate aftercare and follow-up frequency, when indicated.
- 1.4.1.1.2.1.3. Performance Indicators-Skills
 - 1.4.1.1.2.1.3.1. Utilizes proper positioning.
 - 1.4.1.1.2.1.3.2. Utilizes nail nippers appropriately, when indicated.
 - 1.4.1.1.2.1.3.3. Utilizes electric grinder appropriately.
 - 1.4.1.1.2.1.3.4. Utilizes appropriate measures for self-protection (mask, gloves), when indicated.
 - 1.4.1.1.2.1.3.5. Treats iatrogenic lesions appropriately, when indicated.
 - 1.4.1.1.2.1.3.6. Utilizes appropriate procedure for disposal of biomedical waste.
- 1.4.1.2. Manipulation/Mobilization
 - 1.4.1.2.1. Of foot/ankle joint to increase range of motion/reduce associated pain.
 - 1.4.1.2.1.1. Performance Indicators-Knowledge
 - 1.4.1.2.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this technique.
 - 1.4.1.2.1.1.2. Understands imaging study normals/abnormals that would indicate/contraindicate this technique.
 - 1.4.1.2.1.1.3. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc.) of the condition/deformity.
 - 1.4.1.2.1.1.4. Understands the risks and benefits of performing the procedure.
 - 1.4.1.2.1.1.5. Understands the risks and benefits of not performing the procedure.
 - 1.4.1.2.1.1.6. Understands the advantages/disadvantages of the procedure versus other potentially applicable procedures.
 - 1.4.1.2.1.1.7. Understands the regional anatomy.
 - 1.4.1.2.1.1.8. Understands the biomechanics of the joint in question, including axis of motion and normal range of motion.

- 1.4.1.2.1.1.9. Understands anesthesia and/or sedation techniques required by the procedure (see pertinent sections elsewhere in this document).
- 1.4.1.2.1.1.10. Understands technique of joint mobilization/manipulation.
- 1.4.1.2.1.1.11. Understands follow-up care requirements.
- 1.4.1.2.1.2. Performance Indicators-Attitudes
 - 1.4.1.2.1.2.1. Selection of this technique is appropriate for the patient.
 - 1.4.1.2.1.2.2. Can justify the procedure selection.
 - 1.4.1.2.1.2.3. Can effectively present the procedure, alternatives, risks and after-care requirements to the patient.
 - 1.4.1.2.1.2.4. Can justify the chosen technical pathway to completion of the procedure.
 - 1.4.1.2.1.2.5. Recognizes clinical variations and adapts accordingly.
 - 1.4.1.2.1.2.6. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.1.2.1.3. Performance Indicators-Skills
 - 1.4.1.2.1.3.1. Assess range of motion pre/post-procedure.
 - 1.4.1.2.1.3.2. Secures proper patient positioning.
 - 1.4.1.2.1.3.3. Uses appropriate magnitude and direction of force to achieve improved range of motion.
- 1.4.1.2.2. Of congenital foot deformity.
 - 1.4.1.2.2.1. Performance Indicators - Knowledge
 - 1.4.1.2.2.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this technique.
 - 1.4.1.2.2.1.2. Understands imaging study normals/abnormals that would indicate/contraindicate this technique.
 - 1.4.1.2.2.1.3. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc.) of the condition/deformity.
 - 1.4.1.2.2.1.4. Understands the risks and benefits of performing the procedure.
 - 1.4.1.2.2.1.5. Understands the risks and benefits of not performing the procedure.
 - 1.4.1.2.2.1.6. Understands the advantages/disadvantages of the procedure versus other potentially applicable procedures.
 - 1.4.1.2.2.1.7. Understands the appropriate age range for application of this technique.
 - 1.4.1.2.2.1.8. Understands the regional anatomy.
 - 1.4.1.2.2.1.9. Understands technique of joint mobilization for congenital deformities and contractures, including:
 - 1.4.1.2.2.1.9.1. talipes equinovarus.
 - 1.4.1.2.2.1.9.2. talipes calcaneovalgus.
 - 1.4.1.2.2.1.9.3. congenital metatarsus adductus.
 - 1.4.1.2.2.1.9.4. equinus.
 - 1.4.1.2.2.1.9.5. other.

- 1.4.1.2.2.1.10. Understands appropriate sequence of mobilizing a complex congenital deformity.
- 1.4.1.2.2.1.11. Understands follow-up care requirements.
- 1.4.1.2.2.2. Performance Indicators - Attitudes
 - 1.4.1.2.2.2.1. Selection of this technique is appropriate for the patient.
 - 1.4.1.2.2.2.2. Can justify the procedure selection.
 - 1.4.1.2.2.2.3. Can justify the chosen technical pathway to completion of the procedure.
 - 1.4.1.2.2.2.4. Recognizes clinical variations and adapts accordingly.
 - 1.4.1.2.2.2.5. Demonstrates compassion and understanding for the needs of the patient, parents and/or legal guardians.
- 1.4.1.2.2.3. Performance Indicators - Skills
 - 1.4.1.2.2.3.1. Effectively presents the procedure, alternatives, risks and after-care requirements to the patient's parents / legal guardians.
 - 1.4.1.2.2.3.2. Can teach the technique to parents for home treatments.
 - 1.4.1.2.2.3.3.
 - 1.4.1.2.2.3.4. Secures proper patient positioning.
 - 1.4.1.2.2.3.5. Uses appropriate magnitude and direction of force to achieve reduction of the deformity component.
 - 1.4.1.2.2.3.6. Uses appropriate counterpressure maneuvers to prevent associated joint subluxation.
- 1.4.1.3. Closed management of fractures and dislocations
 - 1.4.1.3.1. Closed management of pedal fractures and dislocations
 - 1.4.1.3.1.1. Performance Indicators-Knowledge
 - 1.4.1.3.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this procedure.
 - 1.4.1.3.1.1.2. Understands and recognizes the need for assessment of potential concurrent injuries that may be associated with the fracture/dislocation.
 - 1.4.1.3.1.1.3. Understands the etiologic characteristics, mechanogenesis, and classification of the fracture/dislocation.
 - 1.4.1.3.1.1.4. Understands the potential complications and sequellae of the injury and treatment.
 - 1.4.1.3.1.1.5. Understands the relative stability of the condition following reduction, based on bone and soft tissue injury.
 - 1.4.1.3.1.1.6. Understands imaging study that would indicate/contraindicate this procedure.
 - 1.4.1.3.1.1.7. Understands real time fluoroscopic imaging, technique, risks and alternatives for closed reduction of fractures and dislocations.
 - 1.4.1.3.1.1.8. Understands the advantages/disadvantages, risks and benefits of: closed reduction versus open reduction or no reduction.
 - 1.4.1.3.1.1.9. Understands the regional anatomy.

- 1.4.1.3.1.1.10. Understands the strategic manipulation to gain reduction.
- 1.4.1.3.1.1.11. Understands the likely anatomic impairments to closed reduction.
- 1.4.1.3.1.1.12. Understands pertinent instrumentation (finger-trap, traction devices, padding, bolsters, etc.).
- 1.4.1.3.1.1.13. Understands immediate perireduction care requirements.
- 1.4.1.3.1.1.14. Selection of the procedure is appropriate for the patient.
- 1.4.1.3.1.1.15. Can justify the chosen technical pathway to completion of the procedure (appropriate manipulation of anatomic segments involved/procedural steps, selection/application of splints, casts or percutaneous fixation).
- 1.4.1.3.1.2. Performance Indicators-Attitudes
 - 1.4.1.3.1.2.1. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.1.3.1.3. Performance Indicators-Skills
 - 1.4.1.3.1.3.1. Can effectively present the procedure, alternatives, risks and perireduction recovery process to the patient.
 - 1.4.1.3.1.3.2. Secures proper patient positioning.
 - 1.4.1.3.1.3.3. Utilizes anesthesia, sedation, and/or muscular relaxation appropriately, when indicated.
 - 1.4.1.3.1.3.4. Demonstrates appropriate reduction methodology.
 - 1.4.1.3.1.3.5. Recognizes perireduction variations and adapts accordingly.
 - 1.4.1.3.1.3.6. Recognizes appropriate endpoint for determination of reduction failure.
 - 1.4.1.3.1.3.7. Demonstrates appropriate use of instrumentation and related appliances.
 - 1.4.1.3.1.3.8. Demonstrates appropriate use of imaging to direct and confirm reduction and fixation (if required).
 - 1.4.1.3.1.3.9. Handles and applies fixation devices appropriately, if indicated.
 - 1.4.1.3.1.3.10. Applies appropriate bandage, splint and/or cast.
 - 1.4.1.3.1.3.11. Selects appropriate weight bearing status and assistive devices.
 - 1.4.1.3.1.3.12. Procedural steps are followed appropriately.
 - 1.4.1.3.1.3.13. Procedure is performed in appropriate period of time.
- 1.4.1.3.2. Closed management of ankle fracture/dislocation.
 - 1.4.1.3.2.1. Performance Indicators-Knowledge
 - 1.4.1.3.2.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this procedure.
 - 1.4.1.3.2.1.2. Understands and recognizes the need for assessment of potential concurrent injuries that may be associated with the fracture/dislocation.
 - 1.4.1.3.2.1.3. Understands the etiologic characteristics, mechanogenesis, and classification of the fracture/dislocation.

- 1.4.1.3.2.1.4. Understands the potential complications and sequellae of the injury and treatment.
- 1.4.1.3.2.1.5. Understands the relative stability of the condition following reduction, based on bone and soft tissue injury.
- 1.4.1.3.2.1.6. Understands imaging study that would indicate/contraindicate this procedure.
- 1.4.1.3.2.1.7. Understands real time fluoroscopic imaging, technique, risks and alternatives for closed reduction of fractures and dislocations.
- 1.4.1.3.2.1.8. Understands the advantages/disadvantages, risks and benefits of: closed reduction versus open reduction or no reduction.
- 1.4.1.3.2.1.9. Understands the regional anatomy.
- 1.4.1.3.2.1.10. Understands the strategic manipulation to gain reduction.
- 1.4.1.3.2.1.11. Understands the likely anatomic impairments to closed reduction.
- 1.4.1.3.2.1.12. Understands pertinent instrumentation (traction devices, padding, bolsters, etc.).
- 1.4.1.3.2.1.13. Understands immediate perireduction care requirements.
- 1.4.1.3.2.1.14. Selection of the procedure is appropriate for the patient.
- 1.4.1.3.2.1.15. Can justify the chosen technical pathway to completion of the procedure (appropriate manipulation of anatomic segments involved/procedural steps, selection/application of splints, casts).
- 1.4.1.3.2.2. Performance Indicators-Attitudes
 - 1.4.1.3.2.2.1. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.1.3.2.3. Performance Indicators-Skills
 - 1.4.1.3.2.3.1. Can effectively present the procedure, alternatives, risks and perireduction recovery process to the patient.
 - 1.4.1.3.2.3.2. Secures proper patient positioning.
 - 1.4.1.3.2.3.3. Utilizes anesthesia, sedation, and/or muscular relaxation appropriately, when indicated.
 - 1.4.1.3.2.3.4. Demonstrates appropriate reduction methodology.
 - 1.4.1.3.2.3.5. Recognizes perireduction variations and adapts accordingly.
 - 1.4.1.3.2.3.1. Recognizes appropriate endpoint for determination of reduction failure.
 - 1.4.1.3.2.3.2. Demonstrates appropriate use of instrumentation and related appliances.
 - 1.4.1.3.2.3.3. Demonstrates appropriate use of imaging to direct and confirm reduction.
 - 1.4.1.3.2.3.4. Applies appropriate bandage, splint and/or cast.
 - 1.4.1.3.2.3.5. Selects appropriate weight bearing status and assistive devices.
 - 1.4.1.3.2.3.6. Procedural steps are followed appropriately.

1.4.1.3.2.3.7. Procedure is performed in appropriate period of time.

1.4.1.4. Cast management

1.4.1.4.1. Performance Indicators-Knowledge

1.4.1.4.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate cast management for conditions including:

1.4.1.4.1.1.1. concurrent with closed management of a fracture or dislocation.

1.4.1.4.1.1.2. congenital foot deformities

1.4.1.4.1.1.3. tendon injuries

1.4.1.4.1.1.4. musculoskeletal overuse syndromes

1.4.1.4.1.1.5. neuromuscular disorders

1.4.1.4.1.1.6. foot ulcers

1.4.1.4.1.1.7. Charcot arthropathy

1.4.1.4.1.1.8. delayed/nonunion

1.4.1.4.1.1.9. postoperative surgical care

1.4.1.4.1.1.10. others

1.4.1.4.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate cast management for the conditions listed in section 1.4.1.4.1.1

1.4.1.4.1.3. Understands the risks and benefits of utilizing cast management for the conditions listed in section 1.4.1.4.1.1

1.4.1.4.1.4. Understands the variety of cast immobilization devices/techniques that are available including:

1.4.1.4.1.4.1. long leg cast.

1.4.1.4.1.4.2. short leg cast.

1.4.1.4.1.4.3. compression dressing.

1.4.1.4.1.4.4. posterior splint.

1.4.1.4.1.4.5. prefabricated walking cast.

1.4.1.4.1.4.6. unna boot

1.4.1.4.1.4.7. total contact cast

1.4.1.4.1.4.8. other

1.4.1.4.1.5. Understands the advantages/disadvantages of each of the devices/techniques listed in section 1.4.1.4.1.4

1.4.1.4.1.6. Understands the potential risks /complications of each of the devices/techniques listed in section 1.4.1.4.1.4

1.4.1.4.1.7. Selection of type of immobilization is appropriate for the patient's condition.

1.4.1.4.1.8. Understands the material needs for the application of each of the devices/techniques listed in section 1.4.1.4.1.4

1.4.1.4.1.9. Understands the regional anatomy and appropriate anatomic positioning necessary for application of each of the devices/techniques listed in section 1.4.1.4.1.4

1.4.1.4.1.10. Understands procedural steps used in the application of each of the devices/techniques listed in section 1.4.1.4.1.4

- 1.4.1.4.1.11. Understands and selects the appropriate period of immobilization for each of the conditions listed in section 1.4.1.4.1.4
- 1.4.1.4.1.12. Understands and selects the appropriate weight-bearing status for cast management for each of the conditions listed in section 1.4.1.4.1.1
- 1.4.1.4.1.13. Can justify the type of immobilization, weight-bearing status, and duration of immobilization that was selected.
- 1.4.1.4.1.14. Understands the indications, contraindications, and physiology of adjunctive therapies, including
 - 1.4.1.4.1.14.1. electromagnetic bone stimulation
 - 1.4.1.4.1.14.2. ultrasonic bone stimulation
 - 1.4.1.4.1.14.3. assistive devices.
 - 1.4.1.4.1.14.4. other
- 1.4.1.4.1.15. Understands the appropriate techniques for removal and disposal of the various devices listed in section 1.4.1.4.1.4.
- 1.4.1.4.2. Performance Indicators-Attitudes
 - 1.4.1.4.2.1. Effectively presents potential risks and monitoring instructions to the patient.
 - 1.4.1.4.2.2. Assures patient can manage weight-bearing status with selected assistive device.
- 1.4.1.4.3. Performance Indicators-Skills
 - 1.4.1.4.3.1. Secures proper patient positioning.
 - 1.4.1.4.3.2. Appropriately pads/avoids neurovascular compression.
 - 1.4.1.4.3.3. Utilizes appropriate technique in applying the various devices/techniques listed in section 1.4.1.4.1.4
 - 1.4.1.4.3.4. Procedure is performed in appropriate period of time.
 - 1.4.1.4.3.5. Orders adjunctive therapies listed in section 1.4.1.4.1.1.13 when appropriate.
 - 1.4.1.4.3.6. Utilizes appropriate technique for removal and disposal of the various devices listed in section 1.4.1.4.1.4.
- 1.4.1.5. Tape immobilization, including:
 - 1.4.1.5.1. Performance indicators – Knowledge
 - 1.4.1.5.1.1. Understands indications and contraindications to the use of tape immobilization including:
 - 1.4.1.5.1.1.1. low Dye.
 - 1.4.1.5.1.1.2. high Dye.
 - 1.4.1.5.1.1.3. ankle taping.
 - 1.4.1.5.1.1.4. plantar rest strap.
 - 1.4.1.5.1.1.5. posterior rest / Achilles strap.
 - 1.4.1.5.1.2. Understands the materials utilized in tape immobilization types listed in section 1.4.1.5.1.1.
 - 1.4.1.5.1.3. Understands the application techniques utilized in tape immobilization types listed in section 1.4.1.5.1.1
 - 1.4.1.5.1.4. Selection of tape immobilization fits the overall management of the patient in terms of management sequence,

indication/contraindication and cost-effectiveness (see also section 3.4)

- 1.4.1.5.2. Performance indicators – Attitude
 - 1.4.1.5.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.4.1.5.3. Performance indicators – Skills
 - 1.4.1.5.3.1. Can appropriately apply the tape immobilization types listed in section 1.4.1.5.1.1.
 - 1.4.1.5.3.2. Applies tape immobilization in an appropriate amount of time
- 1.4.1.6. Orthotic, brace, prosthetic, and custom shoe management, including:
 - 1.4.1.6.1. Performance Indicators – Knowledge
 - 1.4.1.6.1.1. Understands foot deformities or conditions amenable to the use of orthotics/braces/prosthetics including:
 - 1.4.1.6.1.1.1. functional foot orthoses.
 - 1.4.1.6.1.1.2. accommodative foot orthoses and insoles.
 - 1.4.1.6.1.1.3. ankle/foot orthoses.
 - 1.4.1.6.1.1.4. drop foot braces and shoe/brace combinations.
 - 1.4.1.6.1.1.5. patellar bearing brace.
 - 1.4.1.6.1.1.6. night splints for plantar fasciitis or Achilles tendonitis.
 - 1.4.1.6.1.1.7. night/day splints for pediatric torsional/pedal deformities.
 - 1.4.1.6.1.1.8. foot prostheses
 - 1.4.1.6.1.1.9. lower limb prostheses.
 - 1.4.1.6.1.2. Understands the impact of concurrent medical conditions that affect the prescribing of orthotics/braces/prosthetics including but not limited to:
 - 1.4.1.6.1.2.1. the neuropathic foot
 - 1.4.1.6.1.2.2. the partially-amputated foot
 - 1.4.1.6.1.2.3. the brain-injured patient
 - 1.4.1.6.1.2.4. the pediatric congenital or acquired disorder
 - 1.4.1.6.1.3. Understands how to write a proper orthotic prescription for foot orthoses
 - 1.4.1.6.1.4. Understands standard terminology for foot orthoses
 - 1.4.1.6.1.5. Understands the materials utilized in the manufacture of orthotics/braces/prosthetics listed in section 1.4.1.6.1.1.
 - 1.4.1.6.1.6. Understands the techniques utilized in the manufacture of the devices listed in section 1.4.1.6.1.1.
 - 1.4.1.6.1.7. Understands casting technique utilized in the manufacture of orthotics/braces/prosthetics listed in section 1.4.1.6.1.1.
 - 1.4.1.6.1.8. Understands technique utilized for the fit, measurement, and modification of orthotics/braces/prosthetics listed in section 1.4.1.6.1.1.
 - 1.4.1.6.1.9. Understands the design features, costs, advantages and disadvantages, indications and contraindications of orthotics/braces/prosthetics listed in section 1.4.1.6.1.1.
 - 1.4.1.6.1.10. Understands the proper shoe gear to use with foot orthoses

- 1.4.1.6.1.11. Understands various techniques and equipment to modify foot orthoses
- 1.4.1.6.1.12. Understands the design features, costs, advantages and disadvantages – including indications and contraindications – of extra depth and custom molded shoes
- 1.4.1.6.1.13. Possesses awareness of resources for referring, prescribing or obtaining extra-depth and custom-made shoes
- 1.4.1.6.1.14. Understands the indications, contraindications, and prescribing procedures for shoe modifications including:
 - 1.4.1.6.1.14.1. Rocker soles
 - 1.4.1.6.1.14.2. Metatarsal bars
 - 1.4.1.6.1.14.3. Limb length corrections
 - 1.4.1.6.1.14.4. Velcro closures
 - 1.4.1.6.1.14.5. Heel stabilizers
 - 1.4.1.6.1.14.6. Flares
- 1.4.1.6.2. Performance indicators – Affective
 - 1.4.1.6.2.1. Understands the psychosocial implications inherent to the use of orthotics/braces/prosthetics listed in section 1.4.1.6.1.1.
- 1.4.1.6.3. Performance indicators – Skills
 - 1.4.1.6.3.1. Casts patient to obtain appropriate negative cast for:
 - 1.4.1.6.3.1.1. custom-made shoes and insoles
 - 1.4.1.6.3.1.2. functional foot orthoses
 - 1.4.1.6.3.1.3. accommodative foot orthoses
 - 1.4.1.6.3.2. Can fabricate the following devices:
 - 1.4.1.6.3.2.1. custom-made shoes and insoles
 - 1.4.1.6.3.2.2. functional foot orthoses
 - 1.4.1.6.3.2.3. accommodative foot orthoses
 - 1.4.1.6.3.2.4. night splints for plantar fasciitis or Achilles tendonitis.
 - 1.4.1.6.3.2.5. foot prostheses
 - 1.4.1.6.3.3. Can select appropriate orthotic material for patient complaints or deformity
 - 1.4.1.6.3.4. Can properly write prescription for devices listed in section 1.4.1.6.1.1.
 - 1.4.1.6.3.5. Can properly dispense and instruct patients in the proper use of:
 - 1.4.1.6.3.5.1. custom-made shoes and insoles
 - 1.4.1.6.3.5.2. functional foot orthoses
 - 1.4.1.6.3.5.3. accommodative foot orthoses
 - 1.4.1.6.3.5.4. night splints for plantar fasciitis or Achilles tendonitis.
 - 1.4.1.6.3.5.5. night/day splints for pediatric torsional/pedal deformities.
 - 1.4.1.6.3.5.6. foot prostheses
 - 1.4.1.6.3.6. Properly ascertain correct fit and adjust as necessary the devices listed in section 1.4.1.6.1.1.
 - 1.4.1.6.3.7. Can prescribe or recommend and/or adjust appropriate shoe for use with devices listed in section 1.4.1.6.1.1.
 - 1.4.1.6.3.8. Can communicate with prosthetist/orthotist to suggest appropriate modifications of ankle/foot orthoses.

- 1.4.1.6.3.9. Can determine appropriate shoe size using a Brannock device and/or foot and shoe tracings
- 1.4.1.7. Footwear and padding.
 - 1.4.1.7.1. Performance indicators – Knowledge
 - 1.4.1.7.1.1. Understands techniques of determining appropriate footwear fit, including application of the Brannock device and use of foot and shoe tracings
 - 1.4.1.7.1.2. Understands the design features and potential functional implications of the various components of over-the-counter footwear including:
 - 1.4.1.7.1.2.1. Last type
 - 1.4.1.7.1.2.2. Lacing configuration
 - 1.4.1.7.1.2.3. Instep type
 - 1.4.1.7.1.2.4. Heel counter stability
 - 1.4.1.7.1.2.5. Midsole and outsole construction
 - 1.4.1.7.1.3. Understands normal and abnormal wear patterns of footwear
 - 1.4.1.7.1.4. Understands the indications for use of various pads including: Long arch pads, Heel lifts, Metatarsal pads, Dancer pads, Pontoon pads, Cobra pads, Budin splint, Buttress pads, Crest pads, Moldable silicone pads and splints, Accommodative pads.
 - 1.4.1.7.1.5. Understands the correct techniques for creating various pads including those listed above in 1.4.1.7.1.3.
 - 1.4.1.7.2. Performance indicators – Skills
 - 1.4.1.7.2.1. Can fabricate various pads, including: Long arch pads, Heel lifts, Metatarsal pads, Dancer pads, Pontoon pads, Cobra pads, Budin splint, Buttress pads, Crest pads, Moldable silicone pads and splints, Accommodative pads.
 - 1.4.1.7.2.2. Can position over-the-counter and customized padding appropriately.
 - 1.4.1.7.2.3. Prescribes appropriate shoe gear based on patient foot type and orthotic use
 - 1.4.1.7.2.4. Provides appropriate advice to patients regarding non-prescription footwear styles, desirable components, fitting, and size.
 - 1.4.1.7.2.5. Can determine appropriate shoe size using a Brannock device.
 - 1.4.1.7.2.6. Can determine if a patient's shoe fits appropriately using foot and shoe tracings.
- 1.4.1.8. Injections and aspirations, including:
 - 1.4.1.8.1. Performance indicators – Knowledge
 - 1.4.1.8.1.1. Understands the indications and contraindications for injection and/or aspiration
 - 1.4.1.8.1.2. Understands the history and physical examination normals/abnormals that would indicate injection and/or aspiration
 - 1.4.1.8.1.3. Understands pharmacology of medications used for diagnostic and/or therapeutic injection/aspiration
 - 1.4.1.8.1.4. Understands the technique of performing injection and/or aspiration including the following:

- 1.4.1.8.1.4.1. injection of trigger points
- 1.4.1.8.1.4.2. injection of nerve lesions, including Morton's neuroma
- 1.4.1.8.1.4.3. injection of musculoskeletal disorders, including plantar fasciitis
- 1.4.1.8.1.4.4. aspiration/injection of pedal or ankle joints
- 1.4.1.8.1.4.5. aspiration/injection of bursae and tendon sheaths
- 1.4.1.8.1.4.6. aspiration/injection of cystic lesions and soft tissue masses
- 1.4.1.8.1.4.7. aspiration/injection of hematoma
- 1.4.1.8.1.4.8. needle biopsy
- 1.4.1.8.1.5. Understands the rationale for performing the techniques listed in 1.4.4.7.2.2.
- 1.4.1.8.1.6. Understands potential complications of injection and proper management
- 1.4.1.8.2. Performance indicators - attitudes
 - 1.4.1.8.2.1.– Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 1.4.1.8.3. Performance indicators – skills.
 - 1.4.1.8.3.1. Utilizes appropriate technique while performing techniques listed in 1.4.4.7.2.2.
 - 1.4.1.8.3.2. Selection of injection and/or aspiration fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 1.4.1.8.3.3. Monitors the patient during the injection
 - 1.4.1.8.3.4. Diagnoses and manages adverse reactions to the injection/aspiration
 - 1.4.1.8.3.5. Recognizes when aspiration results indicate further history, physical exam, diagnostic studies, consultation, or surgical intervention.
 - 1.4.1.8.3.6. Performs the injection and/or aspiration in an appropriate period of time
- 1.4.1.9. Physical therapy
 - 1.4.1.9.1. Performance Indicators-Knowledge
 - 1.4.1.9.1.1. Understands appropriate assessment/evaluation of the patient re: history and physical, range of motion palpation.
 - 1.4.1.9.1.2. Understands functional anatomy.
 - 1.4.1.9.1.3. Understands treatment principles of physical therapy including: pain reduction modalities, increasing range of motion, stretching/strengthening programs.
 - 1.4.1.9.1.4. Understands indications/contraindications of physical therapy.
 - 1.4.1.9.1.5. Understands indications for referral to physical therapy.
 - 1.4.1.9.1.5.1. Musculoskeletal or neurogenic pain resulting from injury, inflammation or immobilization.
 - 1.4.1.9.1.5.2. Musculoskeletal disorders including: muscle sprains/strains, tendonitis, joint stiffness, laxity, inflammation, bursitis/fasciitis, arthritis.

- 1.4.1.9.1.5.3. Impaired range of motion, strength and/or function following surgery, illness or disuse.
- 1.4.1.9.1.5.4. Impaired movement, coordination and function following CVA, spinal chord injury or neurological or progressive neurological disorder.
- 1.4.1.9.1.6. Understands contraindications for referral to physical therapy.
 - 1.4.1.9.1.6.1. The patient's inability to cooperate due to mental impairment.
 - 1.4.1.9.1.6.2. Inability to cooperate/participate with therapy due to medical condition (COPD, DVT).
 - 1.4.1.9.1.6.3. Recognition of less than optimal rehabilitation due to length of time since onset (RSD, longstanding joint contractures).
- 1.4.1.9.1.7. Understands principles and indications of specific modalities.
 - 1.4.1.9.1.7.1. Heat treatments: moist heat packs, paraffin baths, ultrasound, hydrotherapy.
 - 1.4.1.9.1.7.2. Cold treatments: cold/ice packs, ice massage, hydrotherapy.
 - 1.4.1.9.1.7.3. Electrical stimulation: galvanic/continuous DC (iontophoresis).
 - 1.4.1.9.1.7.4. Mechanical traction.
 - 1.4.1.9.1.7.5. Massage: superficial/deep.
 - 1.4.1.9.1.7.6. Joint and soft tissue mobilization.
 - 1.4.1.9.1.7.7. Exercise.
 - 1.4.1.9.1.7.8. Functional re-training.
- 1.4.1.9.2. Performance Indicators-Attitudes
 - 1.4.1.9.2.1. Can select appropriate physical therapy modality for the patient's condition.
 - 1.4.1.9.2.2. Can effectively present the advantages/disadvantages and realistic expectations to the patient.
- 1.4.1.9.3. Performance Indicators-Skills
 - 1.4.1.9.3.1. Should be able to write a referral for appropriate physical therapy for the patient and the patient's condition.
 - 1.4.1.9.3.2. Should be able to evaluate the patient periodically for progress and be able to modify the treatment plan as needed.
- 1.4.1.10. Pharmacologic management, including the use of:
 - 1.4.1.10.1. NSAID's
 - 1.4.1.10.1.1. Performance Indicators-Knowledge
 - 1.4.1.10.1.1.1. Understands indications and usage.
 - 1.4.1.10.1.1.2. Understands contraindications.
 - 1.4.1.10.1.1.3. Understands drug mechanism of action.
 - 1.4.1.10.1.1.4. Understands drug interactions.
 - 1.4.1.10.1.1.5. Understands dosage and administration.
 - 1.4.1.10.1.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.1.1.7. Understands cost.
 - 1.4.1.10.1.1.8. Understands alternatives.
 - 1.4.1.10.1.2. Performance Indicators-Attitudes

- 1.4.1.10.1.2.1. Selection of the medication is appropriate for the patient/disease process.
- 1.4.1.10.1.2.2. Selection of the route of administration is appropriate for the patient/disease process.
- 1.4.1.10.1.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
- 1.4.1.10.1.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.1.2.5. Recognizes treatment failure or success.
- 1.4.1.10.1.3. Performance Indicators-Skills
 - 1.4.1.10.1.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.1.3.2. Monitors patient appropriately.
- 1.4.1.10.2. Antibiotics.
 - 1.4.1.10.2.1. Performance Indicators-Knowledge
 - 1.4.1.10.2.1.1. Understands indications and usage.
 - 1.4.1.10.2.1.2. Understands contraindications.
 - 1.4.1.10.2.1.3. Understands mechanism of action.
 - 1.4.1.10.2.1.4. Understands drug interactions.
 - 1.4.1.10.2.1.5. Understands dosage and administration.
 - 1.4.1.10.2.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.2.1.7. Understands cost.
 - 1.4.1.10.2.1.8. Understands alternatives.
 - 1.4.1.10.2.2. Performance Indicators-Attitudes
 - 1.4.1.10.2.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.2.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.2.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.2.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.2.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.2.3. Performance Indicators-Skills
 - 1.4.1.10.2.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.2.3.2. Monitors patient appropriately.
- 1.4.1.10.3. Antifungals.
 - 1.4.1.10.3.1. Performance Indicators-Knowledge
 - 1.4.1.10.3.1.1. Understands indications and usage.
 - 1.4.1.10.3.1.2. Understands contraindications.
 - 1.4.1.10.3.1.3. Understands mechanism of action.
 - 1.4.1.10.3.1.4. Understands drug interactions.
 - 1.4.1.10.3.1.5. Understands dosage and administration.
 - 1.4.1.10.3.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.3.1.7. Understands cost.
 - 1.4.1.10.3.1.8. Understands alternatives.
 - 1.4.1.10.3.2. Performance Indicators-Attitudes
 - 1.4.1.10.3.2.1. Selection of the medication is appropriate for the patient/disease process.

- 1.4.1.10.3.2.2. Selection of the route of administration is appropriate for the patient/disease process.
- 1.4.1.10.3.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
- 1.4.1.10.3.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.3.2.5. Recognizes treatment failure or success.
- 1.4.1.10.3.3. Performance Indicators-Skills
 - 1.4.1.10.3.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.3.3.2. Monitors patient appropriately.
- 1.4.1.10.4. Narcotic analgesics.
 - 1.4.1.10.4.1. Performance Indicators-Knowledge
 - 1.4.1.10.4.1.1. Understands indications and usage.
 - 1.4.1.10.4.1.2. Understands contraindications.
 - 1.4.1.10.4.1.3. Understands mechanism of action.
 - 1.4.1.10.4.1.4. Understands drug interactions.
 - 1.4.1.10.4.1.5. Understands dosage and administration.
 - 1.4.1.10.4.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.4.1.7. Understands cost.
 - 1.4.1.10.4.1.8. Understands alternatives.
 - 1.4.1.10.4.2. Performance Indicators-Attitudes
 - 1.4.1.10.4.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.4.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.4.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.4.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.4.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.4.3. Performance Indicators-Skills
 - 1.4.1.10.4.3.1. Writes an appropriate prescription
 - 1.4.1.10.4.3.2. Monitors patient appropriately.
- 1.4.1.10.5. Muscle relaxants.
 - 1.4.1.10.5.1. Performance Indicators-Knowledge
 - 1.4.1.10.5.1.1. Understands indications and usage.
 - 1.4.1.10.5.1.2. Understands contraindications.
 - 1.4.1.10.5.1.3. Understands mechanism of action.
 - 1.4.1.10.5.1.4. Understands drug interactions.
 - 1.4.1.10.5.1.5. Understands dosage and administration.
 - 1.4.1.10.5.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.5.1.7. Understands cost.
 - 1.4.1.10.5.1.8. Understands alternatives.
 - 1.4.1.10.5.2. Performance Indicators-Attitudes
 - 1.4.1.10.5.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.5.2.2. Selection of the route of administration is appropriate for the patient/disease process.

- 1.4.1.10.5.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
- 1.4.1.10.5.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.5.2.5. Recognizes treatment failure or success.
- 1.4.1.10.5.3. Performance Indicators-Skills
 - 1.4.1.10.5.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.5.3.2. Monitors patient appropriately.
- 1.4.1.10.6. Medications for neuropathy.
 - 1.4.1.10.6.1. Performance Indicators-Knowledge
 - 1.4.1.10.6.1.1. Understands indications and usage.
 - 1.4.1.10.6.1.2. Understands contraindications.
 - 1.4.1.10.6.1.3. Understands mechanism of action.
 - 1.4.1.10.6.1.4. Understands drug interactions.
 - 1.4.1.10.6.1.5. Understands dosage and administration.
 - 1.4.1.10.6.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.6.1.7. Understands cost.
 - 1.4.1.10.6.1.8. Understands alternatives.
 - 1.4.1.10.6.2. Performance Indicators-Attitudes
 - 1.4.1.10.6.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.6.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.6.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.6.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.6.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.6.3. Performance Indicators-Skills
 - 1.4.1.10.6.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.6.3.2. Monitors patient appropriately.
- 1.4.1.10.7. Sedative/hypnotics.
 - 1.4.1.10.7.1. Performance Indicators-Knowledge
 - 1.4.1.10.7.1.1. Understands indications and usage.
 - 1.4.1.10.7.1.2. Understands contraindications.
 - 1.4.1.10.7.1.3. Understands mechanism of action.
 - 1.4.1.10.7.1.4. Understands drug interactions.
 - 1.4.1.10.7.1.5. Understands dosage and administration.
 - 1.4.1.10.7.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.7.1.7. Understands cost.
 - 1.4.1.10.7.1.8. Understands alternatives.
 - 1.4.1.10.7.2. Performance Indicators-Attitudes
 - 1.4.1.10.7.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.7.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.7.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.

- 1.4.1.10.7.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.7.2.5. Recognizes treatment failure or success.
- 1.4.1.10.7.3. Performance Indicators-Skills
 - 1.4.1.10.7.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.7.3.2. Monitors patient appropriately.
- 1.4.1.10.8. Peripheral vascular agents.
 - 1.4.1.10.8.1. Performance Indicators-Knowledge
 - 1.4.1.10.8.1.1. Understands indications and usage.
 - 1.4.1.10.8.1.2. Understands contraindications.
 - 1.4.1.10.8.1.3. Understands mechanism of action.
 - 1.4.1.10.8.1.4. Understands drug interactions.
 - 1.4.1.10.8.1.5. Understands dosage and administration.
 - 1.4.1.10.8.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.8.1.7. Understands cost.
 - 1.4.1.10.8.1.8. Understands alternatives.
 - 1.4.1.10.8.2. Performance Indicators-Attitudes
 - 1.4.1.10.8.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.8.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.8.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.8.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.8.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.8.3. Performance Indicators-Skills
 - 1.4.1.10.8.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.8.3.2. Monitors patient appropriately.
- 1.4.1.10.9. Anticoagulants.
 - 1.4.1.10.9.1. Performance Indicators-Knowledge
 - 1.4.1.10.9.1.1. Understands indications and usage.
 - 1.4.1.10.9.1.2. Understands contraindications.
 - 1.4.1.10.9.1.3. Understands mechanism of action.
 - 1.4.1.10.9.1.4. Understands drug interactions.
 - 1.4.1.10.9.1.5. Understands dosage and administration.
 - 1.4.1.10.9.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.9.1.7. Understands cost.
 - 1.4.1.10.9.1.8. Understands alternatives.
 - 1.4.1.10.9.2. Performance Indicators-Attitudes
 - 1.4.1.10.9.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.9.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.9.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.9.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.9.2.5. Recognizes treatment failure or success.

- 1.4.1.10.9.3. Performance Indicators-Skills
 - 1.4.1.10.9.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.9.3.2. Monitors patient appropriately.
- 1.4.1.10.10. Antihyperuricemic/uricosuric agents.
 - 1.4.1.10.10.1. Performance Indicators-Knowledge
 - 1.4.1.10.10.1.1. Understands indications and usage.
 - 1.4.1.10.10.1.2. Understands contraindications.
 - 1.4.1.10.10.1.3. Understands mechanism of action.
 - 1.4.1.10.10.1.4. Understands drug interactions.
 - 1.4.1.10.10.1.5. Understands dosage and administration.
 - 1.4.1.10.10.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.10.1.7. Understands cost.
 - 1.4.1.10.10.1.8. Understands alternatives.
 - 1.4.1.10.10.2. Performance Indicators-Attitudes
 - 1.4.1.10.10.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.10.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.10.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.10.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.10.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.10.3. Performance Indicators-Skills
 - 1.4.1.10.10.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.10.3.2. Monitors patient appropriately.
- 1.4.1.10.11. Tetanus toxoid/immune globulin.
 - 1.4.1.10.11.1. Performance Indicators-Knowledge
 - 1.4.1.10.11.1.1. Understands indications and usage.
 - 1.4.1.10.11.1.2. Understands contraindications.
 - 1.4.1.10.11.1.3. Understands mechanism of action.
 - 1.4.1.10.11.1.4. Understands drug interactions.
 - 1.4.1.10.11.1.5. Understands dosage and administration.
 - 1.4.1.10.11.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.11.1.7. Understands cost.
 - 1.4.1.10.11.1.8. Understands alternatives.
 - 1.4.1.10.11.2. Performance Indicators-Attitudes
 - 1.4.1.10.11.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.11.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.11.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.

- 1.4.1.10.11.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.11.2.5. Recognizes treatment failure or success.
- 1.4.1.10.11.3. Performance Indicators-Skills
 - 1.4.1.10.11.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.11.3.2. Monitors patient appropriately.
- 1.4.1.10.12. Laxatives/cathartics.
 - 1.4.1.10.12.1. Performance Indicators-Knowledge
 - 1.4.1.10.12.1.1. Understands indications and usage.
 - 1.4.1.10.12.1.2. Understands contraindications.
 - 1.4.1.10.12.1.3. Understands mechanism of action.
 - 1.4.1.10.12.1.4. Understands drug interactions.
 - 1.4.1.10.12.1.5. Understands dosage and administration.
 - 1.4.1.10.12.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.12.1.7. Understands cost.
 - 1.4.1.10.12.1.8. Understands alternatives.
 - 1.4.1.10.12.2. Performance Indicators-Attitudes
 - 1.4.1.10.12.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.12.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.12.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.12.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.12.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.12.3. Performance Indicators-Skills
 - 1.4.1.10.12.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.12.3.2. Monitors patient appropriately.
- 1.4.1.10.13. Fluid and electrolyte management.
 - 1.4.1.10.13.1. Performance Indicators-Knowledge
 - 1.4.1.10.13.1.1. Understands indications and usage.
 - 1.4.1.10.13.1.2. Understands contraindications.
 - 1.4.1.10.13.1.3. Understands mechanism of action.
 - 1.4.1.10.13.1.4. Understands drug interactions.
 - 1.4.1.10.13.1.5. Understands dosage and administration.
 - 1.4.1.10.13.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.13.1.7. Understands cost.
 - 1.4.1.10.13.1.8. Understands alternatives.
 - 1.4.1.10.13.2. Performance Indicators-Attitudes
 - 1.4.1.10.13.2.1. Selection of the medication is appropriate for the patient/disease process.

- 1.4.1.10.13.2.2. Selection of the route of administration is appropriate for the patient/disease process.
- 1.4.1.10.13.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
- 1.4.1.10.13.2.4. Recognizes adverse reactions and takes appropriate action.
- 1.4.1.10.13.2.5. Recognizes treatment failure or success.
- 1.4.1.10.13.3. Performance Indicators-Skills
 - 1.4.1.10.13.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.13.3.2. Monitors patient appropriately.
- 1.4.1.10.14. Corticosteroids.
 - 1.4.1.10.14.1. Performance Indicators-Knowledge
 - 1.4.1.10.14.1.1. Understands indications and usage.
 - 1.4.1.10.14.1.2. Understands contraindications.
 - 1.4.1.10.14.1.3. Understands mechanism of action.
 - 1.4.1.10.14.1.4. Understands drug interactions.
 - 1.4.1.10.14.1.5. Understands dosage and administration.
 - 1.4.1.10.14.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.14.1.7. Understands cost.
 - 1.4.1.10.14.1.8. Understands alternatives.
 - 1.4.1.10.14.2. Performance Indicators-Attitudes
 - 1.4.1.10.14.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.14.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.14.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.14.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.14.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.14.3. Performance Indicators-Skills
 - 1.4.1.10.14.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.14.3.2. Monitors patient appropriately.
- 1.4.1.10.15. Anti-rheumatic meds.
 - 1.4.1.10.15.1. Performance Indicators-Knowledge
 - 1.4.1.10.15.1.1. Understands indications and usage.
 - 1.4.1.10.15.1.2. Understands contraindications.
 - 1.4.1.10.15.1.3. Understands mechanism of action.
 - 1.4.1.10.15.1.4. Knowledge drug interactions.
 - 1.4.1.10.15.1.5. Understands dosage and administration.
 - 1.4.1.10.15.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.15.1.7. Understands cost.

- 1.4.1.10.15.1.8. Understands alternatives.
- 1.4.1.10.15.2. Performance Indicators-Attitudes
 - 1.4.1.10.15.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.15.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.15.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.15.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.15.2.5. Recognizes treatment failure or success.
- 1.4.1.10.15.3. Performance Indicators-Skills
 - 1.4.1.10.15.3.1. Writes and appropriate prescription/order for medication.
 - 1.4.1.10.15.3.2. Monitors patient appropriately.
- 1.4.1.10.16. Topicals.
 - 1.4.1.10.16.1. Performance Indicators-Knowledge
 - 1.4.1.10.16.1.1. Understands indications and usage.
 - 1.4.1.10.16.1.2. Understands contraindications.
 - 1.4.1.10.16.1.3. Understands mechanism of action.
 - 1.4.1.10.16.1.4. Understands drug interactions.
 - 1.4.1.10.16.1.5. Understands dosage and administration.
 - 1.4.1.10.16.1.6. Understands adverse reactions and their management.
 - 1.4.1.10.16.1.7. Understands cost.
 - 1.4.1.10.16.1.8. Understands alternatives.
 - 1.4.1.10.16.2. Performance Indicators-Attitudes
 - 1.4.1.10.16.2.1. Selection of the medication is appropriate for the patient/disease process.
 - 1.4.1.10.16.2.2. Selection of the route of administration is appropriate for the patient/disease process.
 - 1.4.1.10.16.2.3. Effectively explains risks, benefits, alternatives and dose management to the patient.
 - 1.4.1.10.16.2.4. Recognizes adverse reactions and takes appropriate action.
 - 1.4.1.10.16.2.5. Recognizes treatment failure or success.
 - 1.4.1.10.16.3. Performance Indicators-Skills
 - 1.4.1.10.16.3.1. Writes an appropriate prescription/order for medication.
 - 1.4.1.10.16.3.2. Monitors patient appropriately.

1.4.2. appropriate medical/surgical management when indicated, including:

- 1.4.2.1. Debridement of superficial ulcer or wound.
 - 1.4.2.1.1. Performance Indicators-Knowledge
 - 1.4.2.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate this procedure.

- 1.4.2.1.1.2. Understands imaging study normals/abnormals that would indicate/contraindicate this procedure.
- 1.4.2.1.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate this procedure.
- 1.4.2.1.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc.) of the condition.
- 1.4.2.1.1.5. Understands the risks and benefits of performing the procedure.
- 1.4.2.1.1.6. Understands the risks and benefits of not performing the procedure.
- 1.4.2.1.1.7. Understands the advantages/disadvantages of the procedure versus other potentially applicable procedures.
- 1.4.2.1.1.8. Understands the instrument and material needs for performance of the procedure.
- 1.4.2.1.1.9. Understands the regional anatomy.
- 1.4.2.1.1.10. Understands peri-procedure and associated care requirements.
- 1.4.2.1.2. Performance Indicators-Attitudes
 - 1.4.2.1.2.1. Selection of this procedure is appropriate for the patient.
 - 1.4.2.1.2.2. Can justify the procedure selection.
 - 1.4.2.1.2.3. Can effectively present the procedure, alternatives, risks, and post-procedure care requirements to the patient.
 - 1.4.2.1.2.4. Recognizes clinical variations and adapts accordingly.
 - 1.4.2.1.2.5. Differentiates an infected ulcer or wound from one that is non-infected.
 - 1.4.2.1.2.6. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.2.1.3. Performance Indicators-Skills
 - 1.4.2.1.3.1. Selects appropriate instrument(s) (tissue nipper, scalpel, rongeur, curette).
 - 1.4.2.1.3.2. Uses instrumentation appropriately.
 - 1.4.2.1.3.3. Removes tissue appropriately, based on tissue type, quality, and depth.
 - 1.4.2.1.3.4. Obtains microbiology and/or pathology specimens, as indicated.
 - 1.4.2.1.3.5. Applies appropriate wound care agent.
 - 1.4.2.1.3.5.1. Applies appropriate wound cover.
- 1.4.2.2. Excision or Destruction of skin lesion (including skin biopsy and laser procedures)
 - 1.4.2.2.1. Performance Indicators-Knowledge
 - 1.4.2.2.1.1. Understands normal/abnormal dermatologic anatomy and histology.
 - 1.4.2.2.1.2. Understands normal/abnormal clinical exam that would indicate/contraindicate appropriate procedure.
 - 1.4.2.2.1.3. Understands etiology and pathology of lesion.

- 1.4.2.2.1.4. Understands surgical excision techniques including punch biopsy, incisional biopsy, excisional biopsy, and wide excision techniques.
- 1.4.2.2.1.5. Understands surgical lesion destruction techniques including lasers, electrocautery, cryotherapy
- 1.4.2.2.1.6. Understands the risks, benefits, potential complications, and alternatives to procedure.
- 1.4.2.2.1.7. Understands postoperative care requirements.
- 1.4.2.2.1.8. Understands adjunctive medical therapies for care of malignant skin lesions.
- 1.4.2.2.1.9. Understands instrument and material needs for the procedure.
- 1.4.2.2.2. Performance Indicators-Attitudes
 - 1.4.2.2.2.1. Can describe procedure and present risks, benefits, potential complications and alternative to a patient in an effective manner.
 - 1.4.2.2.2.2. Recognizes preoperative, intraoperative, and postoperative variations and adapts accordingly.
 - 1.4.2.2.2.3. Selection of this procedure is appropriate to the patient.
 - 1.4.2.2.2.4. Recognizes importance of proper follow-up evaluation of malignant skin lesions and initiates appropriate medical consultation.
- 1.4.2.2.3. Performance Indicators-Skills
 - 1.4.2.2.3.1. Can perform appropriate local anesthetic block.
 - 1.4.2.2.3.2. Can perform appropriate skin incision as indicated (i.e. wide excision, punch biopsy, incisional and excisional biopsy techniques).
 - 1.4.2.2.3.3. Can perform anatomic dissection appropriate to this anatomic area.
 - 1.4.2.2.3.4. Can perform suture repair of deep tissue as indicated.
 - 1.4.2.2.3.5. Can apply laser, electrocautery, or cryotherapy for destruction of skin lesion - as indicated.
 - 1.4.2.2.3.6. Can apply appropriate bandage.
 - 1.4.2.2.3.7. Can initiate proper care for postoperative complications
 - 1.4.2.2.3.8. Can interpret histologic/pathology report when indicated.
- 1.4.2.3. Nail Avulsion (partial or complete)
 - 1.4.2.3.1. Performance Indicators-Knowledge
 - 1.4.2.3.1.1. Understands the regional anatomy.
 - 1.4.2.3.1.2. Understands normal/abnormal clinical exam
 - 1.4.2.3.1.3. Understands etiologies and pathomechanics of nail deformities and associated soft tissue infections (paronychia).
 - 1.4.2.3.1.4. Understands the risks, benefits, potential complications and alternatives of the procedure.
 - 1.4.2.3.1.5. Understands the post-operative care requirements.
 - 1.4.2.3.1.6. Understands the instrument needs for the performance of the procedure
 - 1.4.2.3.2. Performance Indicators-Attitudes

- 1.4.2.3.2.1. Can describe procedure, present the risks, benefits, potential complications and alternatives of the procedure to a patient in an effective manner
- 1.4.2.3.2.2. Recognizes preoperative, intraoperative, and postoperative variations and adapts accordingly
- 1.4.2.3.2.3. Selection of this procedure is appropriate for the patient.
- 1.4.2.3.3. Performance Indicators-Skills
 - 1.4.2.3.3.1. Can perform appropriate local anesthetic digital block.
 - 1.4.2.3.3.2. Can dissect, split, and avulse part of the nail plate - partial nail avulsion.
 - 1.4.2.3.3.3. Can dissect and avulse the nail plate - total nail avulsion.
 - 1.4.2.3.3.4. Can apply appropriate bandage.
- 1.4.2.4. Matricectomy (partial or complete - by any means)
 - 1.4.2.4.1. Performance Indicators-Knowledge
 - 1.4.2.4.1.1. Understands the regional anatomy.
 - 1.4.2.4.1.2. Understands normal/abnormal clinical exam that would indicate/contraindicate procedure.
 - 1.4.2.4.1.3. Understands etiologies and pathomechanics of nail and associated soft tissue deformities.
 - 1.4.2.4.1.4. Understands the risks, benefits, potential complications and alternatives of the procedure.
 - 1.4.2.4.1.5. Understands postoperative care requirements.
 - 1.4.2.4.1.6. Understands instrument and chemical needs for the performance of the procedure.
 - 1.4.2.4.1.7. Understands the properties of chemicals if used in performance of the procedure.
 - 1.4.2.4.1.8. Understands the properties of laser physics if used in performance of the procedure.
 - 1.4.2.4.2. Performance Indicators-Attitudes
 - 1.4.2.4.2.1. Can describe procedure, present risks, benefits, potential complications, and alternatives of procedure to a patient in an effective manner.
 - 1.4.2.4.2.2. Recognizes preoperative, intraoperative, and postoperative variations and adapts accordingly.
 - 1.4.2.4.2.3. Selection of this procedure is appropriate for the patient.
 - 1.4.2.4.3. Performance Indicators-Skills
 - 1.4.2.4.3.1. Can perform appropriate local anesthetic digital block.
 - 1.4.2.4.3.2. Can dissect, split, and avulse part of the nail plate - partial matrixectomy.
 - 1.4.2.4.3.3. Can dissect, avulse the nail plate - total matrixectomy.
 - 1.4.2.4.3.4. Can apply chemical agents of laser to nail matrix for permanent correction.
 - 1.4.2.4.3.5. Can apply appropriate bandage.
- 1.4.2.5. Removal of hardware
 - 1.4.2.5.1. Performance Indicators-Knowledge
 - 1.4.2.5.1.1. Understands the regional anatomy.

- 1.4.2.5.1.2. Understands clinical exam normals/abnormals that would indicate/contraindicate procedure.
- 1.4.2.5.1.3. Understands imaging studies to aid in diagnosis.
- 1.4.2.5.1.4. Understands risks, benefits, potential complications and alternative to procedure.
- 1.4.2.5.1.5. Understands postoperative care requirements.
- 1.4.2.5.1.6. Understands instrument and material needs for the performance of the procedure (including fluoroscopy).
- 1.4.2.5.2. Performance Indicators-Attitudes
 - 1.4.2.5.2.1. Can present the procedure - the potential benefits, complications and alternatives - and the preoperative/perioperative/postoperative course to the patient.
 - 1.4.2.5.2.2. Recognizes the preoperative, intraoperative, and postoperative variations and adapts accordingly.
 - 1.4.2.5.2.3. Selection of this procedure is appropriate for the patient.
- 1.4.2.5.3. Performance Indicators-Skills
 - 1.4.2.5.3.1. Can perform appropriate local anesthetic block, if indicated.
 - 1.4.2.5.3.2. Can perform appropriate skin incision.
 - 1.4.2.5.3.3. Can perform anatomic dissection appropriate to the anatomic area.
 - 1.4.2.5.3.4. Can identify and remove the hardware.
 - 1.4.2.5.3.5. Can perform suture repair of deep tissues as indicated.
 - 1.4.2.5.3.6. Can perform suture repair of skin appropriately.
 - 1.4.2.5.3.7. Can apply appropriate bandage.
 - 1.4.2.5.3.8. Can select and prescribe proper antibiotics as indicated.
- 1.4.2.6. Repair of simple laceration (no neurovascular, tendon, or bone/joint involvement).
 - 1.4.2.6.1. Performance Indicators-Knowledge
 - 1.4.2.6.1.1. Understands the regional anatomy.
 - 1.4.2.6.1.2. Understands normal/abnormal clinical exam that would indicate/contraindicate the procedure.
 - 1.4.2.6.1.3. Understands the principles of wound repair.
 - 1.4.2.6.1.4. Understands the risks, benefits, potential complications and alternatives to procedure.
 - 1.4.2.6.1.5. Understands postoperative care requirements.
 - 1.4.2.6.1.6. Understands suture repair techniques.
 - 1.4.2.6.1.7. Understands instrument and material needs for the performance of the procedure.
 - 1.4.2.6.2. Performance Indicators-Attitudes
 - 1.4.2.6.2.1. Can present the procedure - the potential benefits, complications, alternatives - and the preoperative/perioperative/postoperative course to the patient.
 - 1.4.2.6.2.2. Recognizes preoperative, intraoperative, and postoperative variations and adapts accordingly.
 - 1.4.2.6.2.3. Selection of the procedure is appropriate for the patient.
 - 1.4.2.6.3. Performance Indicators-Skills
 - 1.4.2.6.3.1. Can perform appropriate local anesthetic block.

- 1.4.2.6.3.2. Can perform suture repair of the laceration.
- 1.4.2.6.3.3. Can apply appropriate bandage.
- 1.4.2.6.3.4. Can initiate proper care of postoperative complications.

1.4.3. **appropriate surgical management when indicated, including:**

1.4.3.1. Digital Surgery

1.4.3.1.1. Performance Indicators-Knowledge

- 1.4.3.1.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate the following digital procedures including:
 - 1.4.3.1.1.1.1. partial ostectomy/exostectomy
 - 1.4.3.1.1.1.2. phalangectomy
 - 1.4.3.1.1.1.3. arthroplasty (IPJ)
 - 1.4.3.1.1.1.4. implant
 - 1.4.3.1.1.1.5. diaphysectomy
 - 1.4.3.1.1.1.6. phalangeal osteotomy
 - 1.4.3.1.1.1.7. fusion (IPJ)
 - 1.4.3.1.1.1.8. amputation
 - 1.4.3.1.1.1.9. management of osseous tumor/neoplasm
 - 1.4.3.1.1.1.10. management of bone/joint infection
 - 1.4.3.1.1.1.11. open management of digital fracture/dislocation
 - 1.4.3.1.1.1.12. revision/repair of poor surgical outcome
- 1.4.3.1.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.1.1.1.
- 1.4.3.1.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.1.1.1.
- 1.4.3.1.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc) of the condition/deformity.
- 1.4.3.1.1.5. Understands the risks and benefits of performing the procedures listed in section 1.4.3.1.1.1.
- 1.4.3.1.1.6. Understands the risks and benefits of not performing the procedures listed in section 1.4.3.1.1.1.
- 1.4.3.1.1.7. Understands the advantages/disadvantages of the procedures listed in section 1.4.3.1.1.1. versus other potentially applicable procedures.
- 1.4.3.1.1.8. Understands immediate perioperative care requirements.
- 1.4.3.1.1.9. Understands the instrument and material needs for performance of the procedures listed in section 1.4.3.1.1.1.
- 1.4.3.1.1.10. Understands the regional anatomy.
- 1.4.3.1.1.11. Understands appropriate incisional approach(s).
- 1.4.3.1.1.12. Understands procedural steps.
- 1.4.3.1.1.13. Understands tissue-specific handling and repair techniques (skin, nerve, bone, tendon, ligament, capsule, cartilage, muscle).
- 1.4.3.1.1.14. Understands pertinent instrumentation, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.

- 1.4.3.1.1.15. Understands pertinent fixation materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
- 1.4.3.1.1.16. Understands pertinent graft materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application (autograft, allograft, xenograft, and synthetic graft for bone, tendon, etc).
- 1.4.3.1.1.17. Understands postoperative care requirements.
- 1.4.3.1.1.18. Selection of the procedure listed in section 1.4.3.1.1.1. is appropriate for the patient.
- 1.4.3.1.2. Performance Indicators-Attitudes
 - 1.4.3.1.2.1. Can justify the selection of the appropriate procedures listed in section 1.4.3.1.1.1.
 - 1.4.3.1.2.2. Can effectively present the procedure, alternatives, risks and post-operative recovery process to the patient.
 - 1.4.3.1.2.3. Can justify the chosen technical pathway to completion of the procedure (incisional approach, tissue handling/repair, procedural steps, selection/application of fixation devices/biomaterials/grafts).
 - 1.4.3.1.2.4. Prepares for the surgery mentally, physically, and emotionally.
 - 1.4.3.1.2.5. Demonstrates compassion and understanding for the needs of the patient.
 - 1.4.3.1.2.6. Performance Indicators-Skills
 - 1.4.3.1.2.6.1. Secures proper patient positioning.
 - 1.4.3.1.2.6.2. Utilizes hemostasis appropriately, when indicated.
 - 1.4.3.1.2.6.3. Performs skin incision appropriately.
 - 1.4.3.1.2.6.4. Performs appropriate anatomic dissection.
 - 1.4.3.1.2.6.5. Demonstrates appropriate tissue-specific handling techniques.
 - 1.4.3.1.2.6.6. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.1.2.6.7. Uses manual instrumentation appropriately.
 - 1.4.3.1.2.6.8. Uses power instrumentation appropriately.
 - 1.4.3.1.2.6.9. Utilizes wound irrigation appropriately.
 - 1.4.3.1.2.6.10. Demonstrates appropriate tissue-specific repair techniques.
 - 1.4.3.1.2.6.11. Applies wound drainage system appropriately, when indicated.
 - 1.4.3.1.2.6.12. Performs wound closure appropriately.
 - 1.4.3.1.2.6.13. Applies appropriate bandage, splint and/or cast.
 - 1.4.3.1.2.6.14. Recognizes perioperative variations and adapts accordingly.
 - 1.4.3.1.2.6.15. Procedural steps are followed appropriately.
 - 1.4.3.1.2.6.16. Procedure is performed in appropriate period of time.
- 1.4.3.2. First Ray Surgery
 - 1.4.3.2.1. Performance Indicators-Knowledge

- 1.4.3.2.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate the following first ray procedures including:
 - 1.4.3.2.1.1.1. hallux valgus surgery
 - 1.4.3.2.1.1.1.1.bunionectomy (partial ostectomy/Silver procedure)
 - 1.4.3.2.1.1.1.2.bunionectomy with capsulo-tendon balancing procedure.
 - 1.4.3.2.1.1.1.3.bunionectomy with phalangeal osteotomy.
 - 1.4.3.2.1.1.1.4.bunionectomy with distal first metatarsal osteotomy.
 - 1.4.3.2.1.1.1.5.bunionectomy with first metatarsal base/shaft osteotomy.
 - 1.4.3.2.1.1.1.6.bunionectomy with first metatarsocuneiform fusion.
 - 1.4.3.2.1.1.1.7.metatarsophalangeal joint fusion.
 - 1.4.3.2.1.1.1.8.metatarsophalangeal joint implant.
 - 1.4.3.2.1.1.1.9.metatarsophalangeal joint arthroplasty.
 - 1.4.3.2.1.1.2. hallux limitus surgery, including:
 - 1.4.3.2.1.1.2.1.cheilectomy.
 - 1.4.3.2.1.1.2.2.joint salvage with capsulotendon balancing procedure.
 - 1.4.3.2.1.1.2.3.joint salvage with phalangeal osteotomy (eg. Kessel-Bonney, enclavement).
 - 1.4.3.2.1.1.2.4.joint salvage with distal first metatarsal osteotomy.
 - 1.4.3.2.1.1.2.5.joint salvage with first metatarsal base/shaft osteotomy.
 - 1.4.3.2.1.1.2.6.joint salvage with first metatarsocuneiform fusion.
 - 1.4.3.2.1.1.2.7.metatarsophalangeal joint fusion.
 - 1.4.3.2.1.1.2.8.metatarsophalangeal joint implant.
 - 1.4.3.2.1.1.2.9.metatarsophalangeal joint arthroplasty.
 - 1.4.3.2.1.1.3. other first ray surgery, including:
 - 1.4.3.2.1.1.3.1.tendon transfer/lengthening/capsulotendon balancing procedure.
 - 1.4.3.2.1.1.3.2.osteotomy (eg. dorsiflexory).
 - 1.4.3.2.1.1.3.3.metatarsocuneiform fusion (other than for hallux abductovalgus or hallux limitus).
 - 1.4.3.2.1.1.3.4.amputation
 - 1.4.3.2.1.1.3.5.management of first ray osseous tumor/neoplasm.
 - 1.4.3.2.1.1.3.6.management of first ray bone/joint infection.
 - 1.4.3.2.1.1.3.7.open management of first ray fracture/dislocation.
 - 1.4.3.2.1.1.3.8.corticotomy with callus distraction.
 - 1.4.3.2.1.1.3.9.revision/repair of poor surgical outcome (eg. non-union, hallux varus).
- 1.4.3.2.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.2.1.1.
- 1.4.3.2.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.2.1.1.
- 1.4.3.2.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc) of the condition/deformity.

- 1.4.3.2.1.5. Understands the risks and benefits of performing the procedures listed in section 1.4.3.2.1.1.
- 1.4.3.2.1.6. Understands the risks and benefits of not performing the procedures listed in section 1.4.3.2.1.1.
- 1.4.3.2.1.7. Understands the advantages/disadvantages of the procedures listed in section 1.4.3.2.1.1. versus other potentially applicable procedures.
- 1.4.3.2.1.8. Understands immediate perioperative care requirements.
- 1.4.3.2.1.9. Understands the instrument and material needs for performance of the procedures listed in section 1.4.3.2.1.1.
- 1.4.3.2.1.10. Understands the regional anatomy.
- 1.4.3.2.1.11. Understands appropriate incisional approach(s).
- 1.4.3.2.1.12. Understands procedural steps.
- 1.4.3.2.1.13. Understands the axis guide concept to create uniplanar, biplanar versus triplanar correction
- 1.4.3.2.1.14. Understands tissue-specific handling and repair techniques (skin, nerve, bone, tendon, ligament, capsule, cartilage, muscle).
- 1.4.3.2.1.15. Understands pertinent instrumentation, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
- 1.4.3.2.1.16. Understands pertinent fixation materials and techniques, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
- 1.4.3.2.1.17. Understands pertinent graft materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application (autograft, allograft, xenograft, and synthetic graft for bone, tendon, etc).
- 1.4.3.2.1.18. Understands postoperative care requirements.
- 1.4.3.2.1.19. Selection of the procedure listed in section 1.4.3.2.1.1. is appropriate for the patient.
- 1.4.3.2.2. Performance Indicators-Attitudes
 - 1.4.3.2.2.1. Can justify the selection of the appropriate procedures listed in section 1.4.3.2.1.1.
 - 1.4.3.2.2.2. Can effectively present the procedure, alternatives, risks and post-operative recovery process to the patient.
 - 1.4.3.2.2.3. Can justify the chosen technical pathway to completion of the procedure (incisional approach, tissue handling/repair, procedural steps, selection/application of fixation devices/biomaterials/grafts).
 - 1.4.3.2.2.4. Prepares for the surgery mentally, physically, and emotionally.
 - 1.4.3.2.2.5. Demonstrates compassion and understanding for the needs of the patient.
 - 1.4.3.2.2.6. Can present procedure, alternatives, risks, and post operative requirements to a patient in an effective manor.
- 1.4.3.2.3. Performance Indicators – Skills
 - 1.4.3.2.3.1.1. Secures proper patient positioning.

- 1.4.3.2.3.1.2. Utilizes hemostasis appropriately, when indicated.
 - 1.4.3.2.3.1.3. Performs skin incision appropriately.
 - 1.4.3.2.3.1.4. Performs appropriate anatomic dissection.
 - 1.4.3.2.3.1.5. Demonstrates appropriate tissue-specific handling techniques.
 - 1.4.3.2.3.1.6. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.2.3.1.7. Uses manual instrumentation appropriately.
 - 1.4.3.2.3.1.8. Uses power instrumentation appropriately.
 - 1.4.3.2.3.1.9. Uses special instrumentation appropriately, when indicated.
 - 1.4.3.2.3.1.10. Handles and applies fixation devices appropriately.
 - 1.4.3.2.3.1.11. Handles and applies bioimplants appropriately, when indicated
 - 1.4.3.2.3.1.12. Handles and applies graft materials appropriately.
 - 1.4.3.2.3.1.13. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.2.3.1.14. Utilizes wound irrigation appropriately.
 - 1.4.3.2.3.1.15. Demonstrates appropriate tissue-specific repair techniques.
 - 1.4.3.2.3.1.16. Applies wound drainage system appropriately, when indicated.
 - 1.4.3.2.3.1.17. Performs wound closure appropriately.
 - 1.4.3.2.3.1.18. Applies appropriate bandage, splint and/or cast.
 - 1.4.3.2.3.1.19. Procedural steps are followed appropriately.
 - 1.4.3.2.3.1.20. Procedure is performed in appropriate period of time.
 - 1.4.3.2.3.1.21. Recognizes preoperative, intraoperative and postoperative variations/complications and adapts accordingly.
 - 1.4.3.2.3.1.22. Selects appropriate procedure.
- 1.4.3.3. Other Soft Tissue Foot Surgery
- 1.4.3.3.1. Performance Indicators – Knowledge
 - 1.4.3.3.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate the following soft tissue foot procedures including:
 - 1.4.3.3.1.1.1. excision of ossicle/sesamoid.
 - 1.4.3.3.1.1.2. excision of neuroma.
 - 1.4.3.3.1.1.3. removal of deep foreign body (excluding hardware).
 - 1.4.3.3.1.1.4. plantar fasciotomy / plantar fasciectomy.
 - 1.4.3.3.1.1.5. lesser MTPJ capsulotendon balancing.
 - 1.4.3.3.1.1.6. tendon repair, lengthening, or transfer involving the forefoot.
 - 1.4.3.3.1.1.7. open management of dislocation (MTP or tarsometatarsal).
 - 1.4.3.3.1.1.8. incision and drainage with wide debridement of soft tissue infection.
 - 1.4.3.3.1.1.9. excision of soft tissue tumor/mass of the foot (without reconstructive surgery)
 - 1.4.3.3.1.1.10. external neurolysis / decompression (including tarsal tunnel)

- 1.4.3.3.1.1.11. plastic surgery techniques of the forefoot (including skin graft, skin plasty, skin flaps, syndactylization, desyndactylization, and debulking procedures).
- 1.4.3.3.1.1.12. microscopic nerve/vascular repair of the forefoot.
- 1.4.3.3.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.3.1.1.
- 1.4.3.3.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.3.1.1.
- 1.4.3.3.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc) of the condition/deformity including the predisposing factors, the and the microbial pathogens associated with soft tissue infections (including deep space infections).
- 1.4.3.3.1.5. Understands proper adjunctive medical care of puncture wounds including antibiotics and tetanus prophylaxis.
- 1.4.3.3.1.6. Understands proper adjunctive medical care of infections including antibiotics.
- 1.4.3.3.1.7. Understands pathology associated with benign or malignant masses.
- 1.4.3.3.1.8. Understands adjunctive medical therapies for care of malignant masses.
- 1.4.3.3.1.9. Understands the risks and benefits of performing the procedures listed in section 1.4.3.3.1.1.
- 1.4.3.3.1.10. Understands the risks and benefits of not performing the procedures listed in section 1.4.3.3.1.1.
- 1.4.3.3.1.11. Understands the advantages/disadvantages of the procedures listed in section 1.4.3.3.1.1. versus other potentially applicable procedures.
- 1.4.3.3.1.12. Understands immediate perioperative care requirements.
- 1.4.3.3.1.13. Understands the instrument and material needs for performance of the procedures listed in section 1.4.3.3.1.1.
- 1.4.3.3.1.14. Understands the regional and/or microscopic anatomy.
- 1.4.3.3.1.15. Understands appropriate incisional approach(s).
- 1.4.3.3.1.16. Understands procedural steps.
- 1.4.3.3.1.17. Understands tissue-specific handling and repair techniques (skin, nerve, tendon, ligament, capsule, muscle).
- 1.4.3.3.1.18. Understands the principles of tendon transfer.
- 1.4.3.3.1.19. Understands principals of skin grafting, skin plasty, skin flaps, etc.
- 1.4.3.3.1.20. Understands suture repair techniques for primary repair, lengthening, and/or transfer of tendon(s) of the forefoot.
- 1.4.3.3.1.21. Understands pertinent instrumentation, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.

- 1.4.3.3.1.22. Understands pertinent soft tissue graft materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application (autograft, allograft, xenograft)
- 1.4.3.3.1.23. Understands postoperative care requirements.
- 1.4.3.3.1.24. Selection of the procedure listed in section 1.4.3.3.1.1. is appropriate for the patient.
- 1.4.3.3.2. Performance Indicators-Attitudes
 - 1.4.3.3.2.1. Can justify the selection of the appropriate procedures listed in section 1.4.3.3.1.1.
 - 1.4.3.3.2.2. Can effectively present the procedure, alternatives, risks and post-operative recovery process to the patient.
 - 1.4.3.3.2.3. Can justify the chosen technical pathway to completion of the procedure (incisional approach, tissue handling/repair, procedural steps, selection/application of fixation devices/biomaterials/grafts).
 - 1.4.3.3.2.4. Prepares for the surgery mentally, physically, and emotionally.
 - 1.4.3.3.2.5. Demonstrates compassion and understanding for the needs of the patient.
 - 1.4.3.3.2.6. Can present procedure, alternatives, risks, and post operative requirements to a patient in an effective manner.
- 1.4.3.3.3. Performance Indicators – Skills
 - 1.4.3.3.3.1.1. Secures proper patient positioning.
 - 1.4.3.3.3.1.2. Utilizes hemostasis appropriately, when indicated.
 - 1.4.3.3.3.1.3. Performs skin incision appropriately.
 - 1.4.3.3.3.1.4. Performs appropriate anatomic dissection.
 - 1.4.3.3.3.1.5. Demonstrates appropriate tissue-specific handling techniques.
 - 1.4.3.3.3.1.6. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.3.3.1.7. Uses manual instrumentation appropriately.
 - 1.4.3.3.3.1.8. Uses special instrumentation appropriately, when indicated.
 - 1.4.3.3.3.1.9. Can perform appropriate tendon repair/lengthening or transfer - as indicated.
 - 1.4.3.3.3.1.10. Can evaluate dislocation with fluoroscopic imaging under anesthesia.
 - 1.4.3.3.3.1.11. Can reduce dislocation and apply percutaneous fixation.
 - 1.4.3.3.3.1.12. Recognizes and debrides all purulent material and necrotic soft tissue from the surgical site by sharp and/or blunt means.
 - 1.4.3.3.3.1.13. Plans return to surgery with repeat debridement and delayed primary closure if appropriate with quantitative cultures when appropriate
 - 1.4.3.3.3.1.14. Can interpret histology/pathology report and initiate proper medical consultation for evaluation of malignant masses.
 - 1.4.3.3.3.1.15. Can perform suture repair of skin utilizing appropriate plastic surgery techniques for skin plasty, skin flaps,

syndactylization, desyndactylization, and debulking procedures.

- 1.4.3.3.3.1.16. Can isolate the affected nerve(s) or vessel(s) and repair them appropriately using microscopic techniques.
 - 1.4.3.3.3.1.17. Handles and applies soft tissue bioimplants appropriately, when indicated
 - 1.4.3.3.3.1.18. Handles and applies soft tissue graft materials appropriately.
 - 1.4.3.3.3.1.19. Utilizes wound irrigation appropriately.
 - 1.4.3.3.3.1.20. Demonstrates appropriate tissue-specific repair techniques.
 - 1.4.3.3.3.1.21. Applies wound drainage system appropriately, when indicated.
 - 1.4.3.3.3.1.22. Performs wound closure appropriately.
 - 1.4.3.3.3.1.23. Applies appropriate bandage, splint and/or cast.
 - 1.4.3.3.3.1.24. Procedural steps are followed appropriately.
 - 1.4.3.3.3.1.25. Procedure is performed in appropriate period of time.
 - 1.4.3.3.3.1.26. Recognizes preoperative, intraoperative and postoperative variations/complications and adapts accordingly.
 - 1.4.3.3.3.1.27. Selects appropriate procedure.
- 1.4.3.4. Other Osseous Foot Surgery (distal to the tarsometatarsal joints, except where specifically indicated)
- 1.4.3.4.1. Performance Indicators – Knowledge
 - 1.4.3.4.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate the following other osseous foot surgery procedures including:
 - 1.4.3.4.1.1.1. partial ostectomy (distal to and including the talus). lesser MTPJ arthroplasty.
 - 1.4.3.4.1.1.2. bunionectomy of the fifth metatarsal without osteotomy.
 - 1.4.3.4.1.1.3. metatarsal head resection (single or multiple).
 - 1.4.3.4.1.1.4. lesser MTPJ implant.
 - 1.4.3.4.1.1.5. central metatarsal osteotomy.
 - 1.4.3.4.1.1.6. bunionectomy of the fifth metatarsal with osteotomy.
 - 1.4.3.4.1.1.7. open management of lesser metatarsal fractures.
 - 1.4.3.4.1.1.8. harvesting of bone graft distal to the ankle.
 - 1.4.3.4.1.1.9. amputation (eg. lesser ray, TMA)
 - 1.4.3.4.1.1.10. management of bone/joint infection distal to the tarsometatarsal joints(with or without bone graft).
 - 1.4.3.4.1.1.11. management of bone tumor/neoplasm distal to the tarsometatarsal joints (with or without bone graft).
 - 1.4.3.4.1.1.12. open management of tarsometatarsal joint fracture/dislocation.
 - 1.4.3.4.1.1.13. multiple osteotomy management of metatarsus adductus.
 - 1.4.3.4.1.1.14. tarsometatarsal fusion (partial or complete).
 - 1.4.3.4.1.1.15. corticotomy with callus distraction of lesser metatarsal.
 - 1.4.3.4.1.1.16. revision/repair of poor surgical outcome in the forefoot.

- 1.4.3.4.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc) of the condition/deformity.
 - 1.4.3.4.1.5. Understands pathology associated with benign or malignant masses.
 - 1.4.3.4.1.6. Understands adjunctive medical therapies for care of malignant masses.
 - 1.4.3.4.1.7. Understands the risks and benefits of performing the procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.1.8. Understands the risks and benefits of not performing the procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.1.9. Understands the advantages/disadvantages of the procedures listed in section 1.4.3.4.1.1. versus other potentially applicable procedures.
 - 1.4.3.4.1.10. Understands immediate perioperative care requirements.
 - 1.4.3.4.1.11. Understands the instrument and material needs for performance of the procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.1.12. Understands the regional anatomy.
 - 1.4.3.4.1.13. Understands appropriate incisional approach(s).
 - 1.4.3.4.1.14. Understands procedural steps.
 - 1.4.3.4.1.15. Understands the axis guide concept to create uniplanar, biplanar versus triplanar correction
 - 1.4.3.4.1.16. Understands tissue-specific handling and repair techniques (skin, nerve, bone, tendon, ligament, capsule, cartilage, muscle).
 - 1.4.3.4.1.17. Understands pertinent instrumentation, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
 - 1.4.3.4.1.18. Understands pertinent fixation materials and techniques, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
 - 1.4.3.4.1.19. Understands pertinent graft materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application (autograft, allograft, xenograft, and synthetic graft for bone, tendon, etc).
 - 1.4.3.4.1.20. Understands postoperative care requirements.
 - 1.4.3.4.1.21. Selection of the procedure listed in section 1.4.3.4.1.1. is appropriate for the patient.
- 1.4.3.4.2. Performance Indicators-Attitudes
- 1.4.3.4.2.1. Can justify the selection of the appropriate procedures listed in section 1.4.3.4.1.1.
 - 1.4.3.4.2.2. Can effectively present the procedure, alternatives, risks and post-operative recovery process to the patient.

- 1.4.3.4.2.3. Can justify the chosen technical pathway to completion of the procedure (incisional approach, tissue handling/repair, procedural steps, selection/application of fixation devices/biomaterials/grafts).
- 1.4.3.4.2.4. Prepares for the surgery mentally, physically, and emotionally.
- 1.4.3.4.2.5. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.3.4.2.6. Can present procedure, alternatives, risks, and post operative requirements to a patient in an effective manner.
- 1.4.3.4.3. Performance Indicators – Skills
 - 1.4.3.4.3.1.1. Secures proper patient positioning.
 - 1.4.3.4.3.1.2. Utilizes hemostasis appropriately, when indicated.
 - 1.4.3.4.3.1.3. Performs skin incision appropriately.
 - 1.4.3.4.3.1.4. Performs appropriate anatomic dissection.
 - 1.4.3.4.3.1.5. Demonstrates appropriate tissue-specific handling techniques.
 - 1.4.3.4.3.1.6. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.4.3.1.7. Uses manual instrumentation appropriately.
 - 1.4.3.4.3.1.8. Uses power instrumentation appropriately.
 - 1.4.3.4.3.1.9. Uses special instrumentation appropriately, when indicated.
 - 1.4.3.4.3.1.10. Handles and applies fixation devices appropriately.
 - 1.4.3.4.3.1.11. Handles and applies bioimplants appropriately, when indicated
 - 1.4.3.4.3.1.12. Handles and applies graft materials appropriately.
 - 1.4.3.4.3.1.13. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.4.3.1.14. Utilizes wound irrigation appropriately.
 - 1.4.3.4.3.1.15. Demonstrates appropriate tissue-specific repair techniques.
 - 1.4.3.4.3.1.16. Applies wound drainage system appropriately, when indicated.
 - 1.4.3.4.3.1.17. Performs wound closure appropriately.
 - 1.4.3.4.3.1.18. Applies appropriate bandage, splint and/or cast.
 - 1.4.3.4.3.1.19. Procedural steps are followed appropriately.
 - 1.4.3.4.3.1.20. Procedure is performed in appropriate period of time.
 - 1.4.3.4.3.1.21. Recognizes preoperative, intraoperative and postoperative variations/complications and adapts accordingly.
 - 1.4.3.4.3.1.22. Selects appropriate procedure.
- 1.4.3.5. Reconstructive Rearfoot and Ankle Surgery
 - 1.4.3.5.1. Performance Indicators – Knowledge
 - 1.4.3.5.1.1. Understands history and physical examination normals/abnormals that would indicate/contraindicate the following reconstructive rearfoot and ankle surgery procedures including:
 - 1.4.3.5.1.1.1. elective soft tissue procedures,including:
 - 1.4.3.5.1.1.1.1.plastic surgery techniques involving the midfoot, rearfoot, or ankle.

- 1.4.3.5.1.1.1.2.tendon transfer involving the midfoot, rearfoot, ankle, or leg.
- 1.4.3.5.1.1.1.3.tendon lengthening involving the midfoot, hindfoot, ankle, or leg.
- 1.4.3.5.1.1.1.4.soft tissue repair of complex congenital foot/ankle deformity (eg. clubfoot, vertical talus).
- 1.4.3.5.1.1.1.5.delayed repair of ligamentous structures.
- 1.4.3.5.1.1.1.6.ligament or tendon
- 1.4.3.5.1.1.1.7.augmentation/supplementation/restoration.
- 1.4.3.5.1.1.1.8.open synovectomy of the hindfoot or ankle.
- 1.4.3.5.1.1.2. elective osseous procedures, including:
 - 1.4.3.5.1.1.2.1.operative arthroscopy.
 - 1.4.3.5.1.1.2.2.detachment/reattachment of the Achilles with partial ostectomy.
 - 1.4.3.5.1.1.2.3.subtalar arthroeresis.
 - 1.4.3.5.1.1.2.4.midfoot, hindfoot, or ankle fusion.
 - 1.4.3.5.1.1.2.5.midfoot, hindfoot, or tibial osteotomy.
 - 1.4.3.5.1.1.2.6.coalition resection.
 - 1.4.3.5.1.1.2.7.open management of talar dome lesion (with or without osteotomy)
 - 1.4.3.5.1.1.2.8.ankle arthrotomy with removal of loose body or other osteochondral debridement.
 - 1.4.3.5.1.1.2.9.ankle implant.
 - 1.4.3.5.1.1.2.10. corticotomy or osteotomy with callus distraction correction of complex deformity of the midfoot, rearfoot, ankle, or tibia.
- 1.4.3.5.1.1.3. non-elective soft tissue procedures, including:
 - 1.4.3.5.1.1.3.1.repair of acute tendon injury.
 - 1.4.3.5.1.1.3.2.repair of acute ligament injury.
 - 1.4.3.5.1.1.3.3.microscopic nerve/vascular repair of the midfoot, hindfoot, or ankle.
 - 1.4.3.5.1.1.3.4.excision of soft tissue tumor/mass of the foot (with reconstructive surgery).
 - 1.4.3.5.1.1.3.5.excision of soft tissue tumor/mass of the ankle (with or without reconstructive surgery).
 - 1.4.3.5.1.1.3.6.open repair of dislocation (proximal to tarsometatarsal joints).
- 1.4.3.5.1.1.4. non-elective osseous procedures, including:
 - 1.4.3.5.1.1.4.1.open repair of adult midfoot fracture.
 - 1.4.3.5.1.1.4.2.open repair of adult hindfoot fracture.
 - 1.4.3.5.1.1.4.3.open repair of adult ankle fracture.
 - 1.4.3.5.1.1.4.4.open repair of pediatric hindfoot/ankle fractures.
 - 1.4.3.5.1.1.4.5.management of bone tumor/neoplasm (with or without bone graft).
 - 1.4.3.5.1.1.4.6.management of bone/joint infection (with or without bone graft).

- 1.4.3.5.1.1.4.7.amputation proximal to tarsometatarsal joints.
- 1.4.3.5.1.2. Understands diagnostic tests and/or imaging study normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.1.3. Understands laboratory/other test normals/abnormals that would indicate/contraindicate the procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.1.4. Understands the etiologic characteristics (pathomechanics/pathophysiology/epidemiology/etc) of the condition/deformity.
- 1.4.3.5.1.5. Understands pathology associated with benign or malignant masses.
- 1.4.3.5.1.6. Understands gross and histological pathology.
- 1.4.3.5.1.7. Understands adjunctive medical therapies for care of malignant masses.
- 1.4.3.5.1.8. Understands the risks and benefits of performing the procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.1.9. Understands the risks and benefits of not performing the procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.1.10. Understands the advantages/disadvantages of the procedures listed in section 1.4.3.5.1.1. versus other potentially applicable procedures.
- 1.4.3.5.1.11. Understands immediate perioperative care requirements.
- 1.4.3.5.1.12. Understands the instrument and material needs for performance of the procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.1.13. Understands the regional anatomy.
- 1.4.3.5.1.14. Understands appropriate incisional approach(s).
- 1.4.3.5.1.15. Understands procedural steps.
- 1.4.3.5.1.16. Understands appropriate reconstructive techniques.
- 1.4.3.5.1.17. Understands the axis guide concept to create uniplanar, biplanar versus triplanar correction
- 1.4.3.5.1.18. Understands tissue-specific handling and repair techniques (skin, nerve, bone, tendon, ligament, capsule, cartilage, muscle).
- 1.4.3.5.1.19. Understands pertinent instrumentation, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
- 1.4.3.5.1.20. Understands pertinent fixation materials and techniques, including physical characteristics, advantages/disadvantages, indications/contraindications, and application.
- 1.4.3.5.1.21. Understands pertinent graft materials, including physical characteristics, advantages/disadvantages, indications/contraindications, and application (autograft, allograft, xenograft, and synthetic graft for bone, tendon, etc).
- 1.4.3.5.1.22. Understands postoperative care requirements.
- 1.4.3.5.1.23. Selection of the procedure listed in section 1.4.3.5.1.1. is appropriate for the patient.
- 1.4.3.5.2. Performance Indicators-Attitudes

- 1.4.3.5.2.1. Can justify the selection of the appropriate procedures listed in section 1.4.3.5.1.1.
- 1.4.3.5.2.2. Can effectively present the procedure, alternatives, risks and post-operative recovery process to the patient.
- 1.4.3.5.2.3. Can justify the chosen technical pathway to completion of the procedure (incisional approach, tissue handling/repair, procedural steps, selection/application of fixation devices/biomaterials/grafts).
- 1.4.3.5.2.4. Prepares for the surgery mentally, physically, and emotionally.
- 1.4.3.5.2.5. Demonstrates compassion and understanding for the needs of the patient.
- 1.4.3.5.2.6. Can present procedure, alternatives, risks, and post operative requirements to a patient in an effective manner.
- 1.4.3.5.3. Performance Indicators – Skills
 - 1.4.3.5.3.1.1. Secures proper patient positioning.
 - 1.4.3.5.3.1.2. Utilizes hemostasis appropriately, when indicated.
 - 1.4.3.5.3.1.3. Performs skin incision appropriately.
 - 1.4.3.5.3.1.4. Performs appropriate anatomic dissection.
 - 1.4.3.5.3.1.5. Demonstrates appropriate tissue-specific handling techniques.
 - 1.4.3.5.3.1.6. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.5.3.1.7. Can perform open reduction of fracture/dislocation.
 - 1.4.3.5.3.1.8. Can perform appropriate fixation to maintain reduction (k-wire, external fixator, etc.) - if needed.
 - 1.4.3.5.3.1.9. Uses manual instrumentation appropriately.
 - 1.4.3.5.3.1.10. Uses power instrumentation appropriately.
 - 1.4.3.5.3.1.11. Uses special instrumentation appropriately, when indicated.
 - 1.4.3.5.3.1.12. Handles and applies fixation devices appropriately.
 - 1.4.3.5.3.1.13. Handles and applies bioimplants appropriately, when indicated
 - 1.4.3.5.3.1.14. Handles and applies graft materials appropriately.
 - 1.4.3.5.3.1.15. Procures specimen for microbiology / pathology appropriately, when indicated.
 - 1.4.3.5.3.1.16. Utilizes wound irrigation appropriately.
 - 1.4.3.5.3.1.17. Demonstrates appropriate tissue-specific repair techniques.
 - 1.4.3.5.3.1.18. Applies wound drainage system appropriately, when indicated.
 - 1.4.3.5.3.1.19. Performs wound closure appropriately.
 - 1.4.3.5.3.1.20. Applies appropriate bandage, splint and/or cast.
 - 1.4.3.5.3.1.21. Procedural steps are followed appropriately.
 - 1.4.3.5.3.1.22. Procedure is performed in appropriate period of time.
 - 1.4.3.5.3.1.23. Recognizes preoperative, intraoperative and postoperative variations/complications and adapts accordingly.
 - 1.4.3.5.3.1.24. Selects appropriate procedure
- 1.4.4. **appropriate anesthesia management when indicated, including:**

1.4.4.1. Local

1.4.4.1.1. Performance Indicators - Didactic

- 1.4.4.1.1.1. Understands history and physical at examination that would contribute to the selection of the appropriate local anesthetic with or without epinephrine.
- 1.4.4.1.1.2. Understands laboratory values that would contribute to the assessment and selection of appropriate local anesthetics, with or without epinephrine.
- 1.4.4.1.1.3. Understands pharmacology of local anesthetics and epinephrine.
- 1.4.4.1.1.4. Understands advantages/disadvantages of use of local anesthetics versus other forms of anesthesia.
- 1.4.4.1.1.5. Understands various techniques for performing sensory and/or motor blocks and nerve blocks used in the lower extremity.
- 1.4.4.1.1.6. Understands universal precautions and needle precautions.
- 1.4.4.1.1.7. Understands appropriate injection techniques used in administering the local anesthetic.
- 1.4.4.1.1.8. Understands allergies and adverse reactions to local anesthetics, epinephrine and preservatives.
- 1.4.4.1.1.9. Understands the management of allergies and adverse reactions to local anesthetics, epinephrine and preservatives.

1.4.4.1.2. Performance Indicators - Affective

- 1.4.4.1.2.1. Selection of the local anesthetic plan is appropriate for the patient and desired procedure.
- 1.4.4.1.2.2. Recognizes periprocedure morbidities and adjusts the anesthetic plan accordingly.
- 1.4.4.1.2.3. Effectively presents the local anesthetic plan, alternatives, and risks to the patient.
- 1.4.4.1.2.4. Recognizes related adverse reactions and emergencies, and initiates appropriate action.
- 1.4.4.1.2.5. Demonstrates compassion and understanding for the needs of the patient.

1.4.4.1.3. Performance Indicators - Skills

- 1.4.4.1.3.1. Performs an appropriate pre-anesthetic evaluation.
- 1.4.4.1.3.2. Administers field blocks, digital blocks, Mayo blocks, and isolated nerve blocks of the lower extremities with proper technique.
- 1.4.4.1.3.3. Utilizes proper technique while injecting the local anesthetic.
- 1.4.4.1.3.4. Utilizes adjunctive topical agents, as needed.
- 1.4.4.1.3.5. Utilizes universal precautions and appropriate need precautions.
- 1.4.4.1.3.6. Monitors for, recognizes, and manages adverse reactions to the local anesthetic.

1.4.4.2. General, Spinal, Epidural, Regional, and Conscious Sedation Anesthesia

1.4.4.2.1. Didactic Performance Indicators

- 1.4.4.2.1.1. Understands the components, techniques, and normals/abnormals of the history and physical examination pertinent to the pre-anesthetic assessment

- 1.4.4.2.1.2. Understands the laboratory tests pertinent to the pre-anesthetic assessment, and their normals/abnormals.
- 1.4.4.2.1.3. Understands ASA Physical Status classification system and the impact of medical comorbidities on pre-anesthetic assessment and management
- 1.4.4.2.1.4. Understands the stages and planes of ether anesthesia as described by Guedel in 1937.
- 1.4.4.2.1.5. Understands the advantages/disadvantages of general, spinal, epidural, regional, and conscious sedation anesthesia versus other potentially applicable forms of anesthesia.
- 1.4.4.2.1.6. Understands the pharmacology of pre-anesthesia medications (barbituates, benzodiazepines, narcotics, anticholinergics).
- 1.4.4.2.1.7. Understands the pharmacology of neuromuscular blocking agents (depolarizing and nondepolarizing).
- 1.4.4.2.1.8. Understands the pharmacology of the intravenous induction and maintenance agents.
- 1.4.4.2.1.9. Understands the pharmacology of inhalational medications.
- 1.4.4.2.1.10. Understands the pharmacology of the various reversal agents.
- 1.4.4.2.1.11. Understands anesthetic complications and their management.
- 1.4.4.2.1.12. Understands pertinent regional anatomy, including the airway.
- 1.4.4.2.1.13. Understands the technical aspects of maintaining an airway.
- 1.4.4.2.1.14. Understands the technical aspects of intubation.
- 1.4.4.2.1.15. Understands the technical aspects of introducing an LMA.
- 1.4.4.2.1.16. Understands the technical aspects of obtaining IV access.
- 1.4.4.2.1.17. Understands the technical aspects of inserting an oropharyngeal or nasopharyngeal airway.
- 1.4.4.2.1.18. Understands the technical aspects of performing a Bier block.
- 1.4.4.2.1.19. Understands the technical aspects of administration of spinal anesthesia.
- 1.4.4.2.1.20. Understands the technical aspects of peri-anesthesia monitoring of a patient.
- 1.4.4.2.2. Affective Performance Indicators
 - 1.4.4.2.2.1. Selection of anesthetic plan is appropriate for the patient and planned procedure..
 - 1.4.4.2.2.2. Effectively presents the anesthetic plan, alternatives, and risks to the patient.
 - 1.4.4.2.2.3. Recognizes preoperative medical comorbidities, laboratory/testing variations and adapts anesthetic plan accordingly.
 - 1.4.4.2.2.4. Recognizes intraoperative variations/emergencies and responds accordingly.
 - 1.4.4.2.2.5. Recognizes postoperative complications and initiates appropriate management and/or referral.

1.4.4.2.2.6. Demonstrates compassion and understanding for the needs of the patient.

1.4.4.2.3. Technical Performance Indicators

1.4.4.2.3.1. Performs pre-anesthetic evaluation including history and physical examination.

1.4.4.2.3.2. Orders and interprets appropriate preoperative diagnostic tests.

1.4.4.2.3.3. Assigns correct ASA status.

1.4.4.2.3.4. Secures and positions patient properly.

1.4.4.2.3.5. Places and secures intravenous line.

1.4.4.2.3.6. Administers agents for conscious sedation.

1.4.4.2.3.7. Monitors patient during the surgical procedure.

1.4.5. appropriate consultation and/or referrals.

1.4.5.5. Performance indicators – Knowledge

1.4.5.5.1. Recognizes when consultation with another podiatric or medical specialist is necessary for either diagnosis or management

1.4.5.5.2. Recognizes when referral to another podiatric or medical specialist is necessary for either diagnosis or management

1.4.5.5.3. Understands appropriate written and verbal communication methods in obtaining consultation or referral

1.4.5.5.4. Interprets consultation report and/or recommendations appropriately

1.4.5.5.5. Selection of consultation and/or referral fits the overall management of the patient in terms of evaluation or management sequence, timeliness, and cost-effectiveness (see also section 3.4)

1.4.5.5.6. Recognizes when consultation results indicate further history, physical exam, diagnostic studies, therapeutic intervention or further consultation

1.4.5.6. Performance indicators – Attitudes

1.4.5.6.1.1. Recognizes and addresses patient concerns regarding medical necessity of further consultation and/or referral

1.4.5.7. Performance indicators – Skills

1.4.5.7.1. Utilizes effective written/oral communication skills when requesting consultation or referral

1.4.6. appropriate lower extremity health promotion and education

1.4.6.5. Performance indicators – Knowledge

1.4.6.5.1. Understands the indications for lower extremity health promotion and education including:

1.4.6.5.1.1. lower extremity disease prevention related to concurrent medical disease states, including but not limited to diabetes mellitus

1.4.6.5.1.2. lower extremity disease prevention related to substance abuse including tobacco and alcohol

1.4.6.5.1.3. factors associated with surgical and nonsurgical treatment plans

1.4.6.5.1.4. etiology and progression of pediatric deformities

1.4.6.5.2. Understands pertinent aspects of patient education related to specific surgical and nonsurgical treatment plans

1.4.6.5.3. Understands the natural history of diseases affecting the lower extremity including etiologic and contributory factors and associated preventive measures

1.4.6.5.4. Understands the methodologies for communicating health promotion, education and home care via verbal, written, or other media.

1.4.6.6. Performance indicators – Attitudes

1.4.6.6.1. Takes care to ascertain patient understanding

1.4.6.7. Performance indicators – Skills

1.4.6.7.1. Utilizes effective communication skills (verbal, written, other media) in lower extremity health promotion and education.

1.4.6.7.2. Monitors and documents patient compliance with advised health promotion and education plan.

1.5. Assess the treatment plan and revise it as necessary

1.5.1. Performance indicators – Knowledge

1.5.1.1. Understands appropriate follow-up management as indicated by patient's condition, including:

1.5.1.1.1. Understands appropriate intervals for follow up evaluation

1.5.1.1.2. Understands and recognizes the indications for additional evaluation or diagnostic measures.

1.5.1.1.3. Understands and recognizes the indications for additional therapeutic measures.

1.5.1.1.4. Understands appropriate post-procedure management.

1.5.1.1.5. Understands appropriate rehabilitative care.

1.5.1.1.6. Understands and recognizes when a therapeutic endpoint has been achieved.

1.5.1.1.7. Recognizes sequelae.

1.5.1.1.8. Determines long-term prognosis.

1.5.1.1.9. Assesses and quantifies current level of disability.

1.5.1.2. Understands appropriate documentation

1.5.2. Performance Indicators – Attitude

1.5.2.1. Demonstrates a willingness to critically analyze decisions made regarding the patient treatment plan

1.5.3. Performance Indicators – Skill

1.5.3.1. Appropriately documents patient progress.

1.5.3.2. Generates/revises treatment plan based on diagnostic and therapeutic results.

2. Assess and manage the patient's general medical status.

2.1. Perform and interpret the findings of a comprehensive medical history and physical examination (including pre-operative history and physical examination), including:

2.1.1. Comprehensive medical history.

2.5.1.1. Performance indicators - Knowledge.

2.5.1.1.1. Understands the logical organization of a comprehensive history to include:

2.5.1.1.1.1. Chief Complaint.

2.5.1.1.1.2. History of chief complaint (history of present illness).

2.5.1.1.1.3. Past medical history.

2.5.1.1.1.3.1. Illnesses.

2.5.1.1.1.3.2. Medications

2.5.1.1.1.3.3. Allergies.

2.5.1.1.1.3.4. Past surgical history

2.5.1.1.1.3.5. Hospitalizations.

2.5.1.1.1.4. Social history

2.5.1.1.1.5. Family history

2.5.1.1.1.6. Review of systems.

2.5.1.1.2. Understands the details to be asked in obtaining a history of chief complaint (NLDOCATS), past medical history, social history, family history, and review of systems.

2.5.1.2. Performance indicators – Attitudes.

2.5.1.2.1. Uses active listening.

2.5.1.2.2. Communicates effectively with the patient.

2.5.1.2.3. Is attentive to the patient.

2.5.1.2.4. Promotes a calm and reassuring atmosphere for the encounter.

2.5.1.3. Performance indicators – Skills.

2.5.1.3.1. Obtains a comprehensive history in adequate detail.

2.5.1.3.2. Obtains a comprehensive history in appropriate period of time.

2.5.1.3.3. Obtains a comprehensive history using logical organization.

2.1.2. Comprehensive Physical Examination

2.1.2.1. Vital signs

2.1.2.1.1. Performance indicators – Knowledge

2.1.2.1.1.1. Understands the correct technique for obtaining the following vital signs including: Height, Weight, Blood pressure, Temperature, Pulse, Respiratory rate

2.1.2.1.1.2. Understands the normal and abnormal findings for each of the vital signs listed in section 2.1.2.1.1.1

2.1.2.1.1.3. Understands the rationale for obtaining each of the exam components listed in section 2.1.2.1.1.1

2.1.2.1.2. Performance indicators – Attitudes

2.1.2.1.2.1. Facilitates patient cooperation

2.1.2.1.2.2. Communicates effectively with the patient

2.1.2.1.2.3. Is attentive to the patient

2.1.2.1.2.4. Promotes a calm and reassuring atmosphere for the encounter

2.1.2.1.2.5. Is sensitive to the patient's discomfort

- 2.1.2.1.3. Performance indicators – Skills
 - 2.1.2.1.3.1.Utilizes the correct technique for obtaining each of the vital signs listed in section 2.1.2.1.1.1
 - 2.1.2.1.3.2.Recognizes (correctly interprets) the normal or abnormal findings of each of the components in section 2.1.2.1.1.1when performed upon a patient
 - 2.1.2.1.3.3.Obtains vital signs in an appropriate period of time.
- 2.1.2.2.Physical Examination
 - 2.1.2.2.1. Head, Eyes, Ears, Nose, and Throat
 - 2.1.2.2.1.1.Performance Indicators – Knowledge
 - 2.1.2.2.1.1.1. Understands the correct technique for performing the following components of examination of the HEENT:
 - 2.1.2.2.1.1.1.1.Inspection/Observation of
 - 2.1.2.2.1.1.1.1.1. Scalp – Skin lines, fluctuant masses, organized masses
 - 2.1.2.2.1.1.1.1.2. Skull – Malformations, masses
 - 2.1.2.2.1.1.1.1.3. Cheek – Symmetry, edema, ulceration
 - 2.1.2.2.1.1.1.1.4. Facies – Shape, features, nature of muscular movement
 - 2.1.2.2.1.1.1.1.5. Eyes – Extraocular movement, convergence, visual fields, globe protrusion/recession
 - 2.1.2.2.1.1.1.1.6. Eyelids – Motion, secretion, edema
 - 2.1.2.2.1.1.1.1.7. Sclera – Color, vascular engorgement
 - 2.1.2.2.1.1.1.1.8. Cornea – Scars, abrasions
 - 2.1.2.2.1.1.1.1.9. Iris – Color, shape, deposits
 - 2.1.2.2.1.1.1.1.10. Pupils – Equality, shape, reaction to light, accommodation
 - 2.1.2.2.1.1.1.1.11. Lens – Clarity, shape
 - 2.1.2.2.1.1.1.1.12. Nose – Symmetry, profile
 - 2.1.2.2.1.1.1.1.13. Lips – Defects, color, ulceration
 - 2.1.2.2.1.1.1.1.14. Gums – Inflammation, color, hemorrhaging
 - 2.1.2.2.1.1.1.1.15. Breath Odor – Acetone, fetor
 - 2.1.2.2.1.1.1.1.16. Tongue – Size, deviation, color, lesions, vascular engorgement
 - 2.1.2.2.1.1.1.1.17. Oral Cavity/Oropharynx – Color, size, edema, ulceration, uvula position, tonsil color, tonsil size, tonsil swelling
 - 2.1.2.2.1.1.1.1.18. Jaw – Range of motion
 - 2.1.2.2.1.1.1.1.19. Ear – Shape, color, masses
 - 2.1.2.2.1.1.1.2.Palpation
 - 2.1.2.2.1.1.1.2.1. Scalp – Fluctuant masses, organized masses
 - 2.1.2.2.1.1.1.2.2. Skull – Masses
 - 2.1.2.2.1.1.1.2.3. Cheek – Swelling, ulceration
 - 2.1.2.2.1.1.1.2.4. Nose – Swelling, masses, points of tenderness
 - 2.1.2.2.1.1.1.2.5. Lips – Defects, ulceration
 - 2.1.2.2.1.1.1.2.6. Gums – Masses

- 2.1.2.2.1.1.1.2.7. Tongue – Lesions
- 2.1.2.2.1.1.1.2.8. Oral Cavity/Oropharynx- Masses, ulceration
- 2.1.2.2.1.1.1.2.9. Jaw – Range of motion
- 2.1.2.2.1.1.1.2.10. Ear – Lesions
- 2.1.2.2.1.1.1.3.Special tests
 - 2.1.2.2.1.1.1.3.1. Ophthalmoscopic examination – Color and clarity of media; vascular engorgement, hemorrhaging, vascular nicking, scarification of fundus; color, shape and size of optic disc; integrity of optic nerve
 - 2.1.2.2.1.1.1.3.2. Otoscopic examination – Swelling, redness, drainage
 - 2.1.2.2.1.1.1.3.3. Nasal Speculum examination – Integrity, color, swelling, hemorrhaging
 - 2.1.2.2.1.1.1.3.4. Cranial nerves
- 2.1.2.2.1.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.1.1.1
- 2.1.2.2.1.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.1.1.1
- 2.1.2.2.1.2.Performance indicators – Attitudes
 - 2.1.2.2.1.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.1.2.2. Communicates effectively with the patient
 - 2.1.2.2.1.2.3. Is attentive to the patient
 - 2.1.2.2.1.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.1.2.5. Is sensitive to the patient’s discomfort during the exam
- 2.1.2.2.1.3.Performance indicators – Skills
 - 2.1.2.2.1.3.1. Utilizes the correct technique for performing each of the components of examination of the HEENT listed in section 2.1.2.2.1.1.1.
 - 2.1.2.2.1.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.1.1.1.when performed upon a patient
 - 2.1.2.2.1.3.3. Utilizes appropriate HEENT exam components indicated by patient’s chief complaint
 - 2.1.2.2.1.3.4. Performs the HEENT exam in an appropriate period of time
- 2.1.2.2.2. Neck
 - 2.1.2.2.2.1.Performance Indicators – Knowledge
 - 2.1.2.2.2.1.1. Understands the correct technique for performing the following components of examination of the neck:
 - 2.1.2.2.2.1.1.1.Inspection/Observation of:
 - 2.1.2.2.2.1.1.1.1. Alignment
 - 2.1.2.2.2.1.1.1.2. Range of motion
 - 2.1.2.2.2.1.1.1.3. Observable masses
 - 2.1.2.2.2.1.1.1.4. Symmetry

- 2.1.2.2.2.1.1.1.5. Jugular venous distention (JVD)
- 2.1.2.2.2.1.1.2. Auscultation of:
 - 2.1.2.2.2.1.1.2.1. Carotid artery
 - 2.1.2.2.2.1.1.2.2. Breath sounds
- 2.1.2.2.2.1.1.3. Palpation of:
 - 2.1.2.2.2.1.1.3.1. Carotid pulse
 - 2.1.2.2.2.1.1.3.2. C spine – static and dynamic
 - 2.1.2.2.2.1.1.3.3. musculature
 - 2.1.2.2.2.1.1.3.4. thyroid gland
 - 2.1.2.2.2.1.1.3.5. lymph nodes
 - 2.1.2.2.2.1.1.3.6. other masses
- 2.1.2.2.2.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.2.1.1.
- 2.1.2.2.2.1.3. Correctly interprets the normal or abnormal findings of each of the exam components in section 2.1.2.2.2.1.1. when performed upon a patient
- 2.1.2.2.2.1.4. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.2.1.1.
- 2.1.2.2.2.2. Performance indicators – Attitudes
 - 2.1.2.2.2.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.2.2.2. Communicates effectively with the patient
 - 2.1.2.2.2.2.3. Is attentive to the patient
 - 2.1.2.2.2.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.2.2.5. Is sensitive to the patient’s discomfort during the exam
- 2.1.2.2.2.3. Performance indicators – Skills
 - 2.1.2.2.2.3.1. Utilizes the correct technique for performing each of the components of examination of the neck listed in section 2.1.2.2.2.1.1.
 - 2.1.2.2.2.3.2. Recognizes the normal or abnormal findings of each of the exam components in section 2.1.2.2.2.1.1. when performed upon a patient
 - 2.1.2.2.2.3.3. Utilizes appropriate neck exam components indicated by patient’s chief complaint
 - 2.1.2.2.2.3.4. Performs the neck exam in an appropriate period of time
- 2.1.2.2.3. Chest/Breast
 - 2.1.2.2.3.1. Performance indicators – Knowledge
 - 2.1.2.2.3.1.1. Understands the correct technique for performing the following components of examination of the chest:
 - 2.1.2.2.3.1.1.1. Inspection/Observation of:
 - 2.1.2.2.3.1.1.1.1. Alignment and symmetry
 - 2.1.2.2.3.1.1.1.2. Observable masses/deformities
 - 2.1.2.2.3.1.1.1.3. Chest wall motion
 - 2.1.2.2.3.1.1.1.4. Nipple characteristics including: color, discharge, position, symmetry, size, edema, lesions

- 2.1.2.2.3.1.1.1.5. Breast characteristics including: symmetry, dilation of veins, observable masses, size and shape, dimpling, edema, lesions
- 2.1.2.2.3.1.1.2. Palpation of:
 - 2.1.2.2.3.1.1.2.1. Nipple including: induration, tenderness, adhesions
 - 2.1.2.2.3.1.1.2.2. Breast tissue including: temperature, masses, induration, tenderness, consistency, adhesions
 - 2.1.2.2.3.1.1.2.3. Thorax including: ribs, T spine, sternum, clavicle, scapula costal cartilages, axillary nodes
- 2.1.2.2.3.1.1.3. Percussion for:
 - 2.1.2.2.3.1.1.3.1. Level of diaphragm
- 2.1.2.2.3.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.3.1.1.
- 2.1.2.2.3.1.3. Correctly interprets the normal or abnormal findings of each of the exam components in section 2.1.2.2.3.1.1. when performed upon a patient
- 2.1.2.2.3.1.4. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.3.1.1.
- 2.1.2.2.3.2. Performance indicators – Attitudes
 - 2.1.2.2.3.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.3.2.2. Communicates effectively with the patient
 - 2.1.2.2.3.2.3. Is attentive to the patient
 - 2.1.2.2.3.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.3.2.5. Is sensitive to the patient's discomfort during the exam
- 2.1.2.2.3.3. Performance indicators – Skills
 - 2.1.2.2.3.3.1. Utilizes the correct technique for performing each of the components of examination of the chest listed in section 2.1.2.2.3.1.1.
 - 2.1.2.2.3.3.2. Recognizes the normal or abnormal findings of each of the exam components in section 2.1.2.2.3.1.1. when performed upon a patient
 - 2.1.2.2.3.3.3. Utilizes appropriate chest exam components indicated by patient's chief complaint
 - 2.1.2.2.3.3.4. Performs the chest exam in an appropriate period of time
- 2.1.2.2.4. Heart
 - 2.1.2.2.4.1. Performance Indicators – Knowledge
 - 2.1.2.2.4.1.1. Understands the correct technique for performing the following components of examination of the heart:
 - 2.1.2.2.4.1.1.1. Inspection/Observation of:
 - 2.1.2.2.4.1.1.1.1. Apical impulse
 - 2.1.2.2.4.1.1.2. Palpation of:
 - 2.1.2.2.4.1.1.2.1. PMI
 - 2.1.2.2.4.1.1.3. Auscultation of:

- 2.1.2.2.4.1.1.3.1. Heart sounds – normal and abnormal
- 2.1.2.2.4.1.1.3.2. Murmurs and gallops
- 2.1.2.2.4.1.1.3.3. Rubs
- 2.1.2.2.4.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.4.1.
- 2.1.2.2.4.1.3. Understands the correct method of grading heart murmurs and the distinguishing features between benign and pathologic murmurs
- 2.1.2.2.4.1.4. Correctly interprets the normal or abnormal findings of each of the exam components in section 2.1.2.2.4.1.when performed upon a patient
- 2.1.2.2.4.1.5. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.4.1.
- 2.1.2.2.4.2.Performance indicators – Attitudes
 - 2.1.2.2.4.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.4.2.2. Communicates effectively with the patient
 - 2.1.2.2.4.2.3. Is attentive to the patient
 - 2.1.2.2.4.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.4.2.5. Is sensitive to the patient’s discomfort during the exam
- 2.1.2.2.4.3.Performance indicators – Skills
 - 2.1.2.2.4.3.1. Utilizes the correct technique for performing each of the components of examination of the heart listed in section 2.1.2.2.4.1.
 - 2.1.2.2.4.3.2. Recognizes the normal or abnormal findings of each of the exam components in section 2.1.2.2.4.1.when performed upon a patient
 - 2.1.2.2.4.3.3. Utilizes appropriate heart exam components indicated by patient’s chief complaint
 - 2.1.2.2.4.3.4. Performs the heart exam in an appropriate period of time
- 2.1.2.2.5. Lungs
 - 2.1.2.2.5.1.Performance Indicators – Knowledge
 - 2.1.2.2.5.1.1. Understands the correct technique for performing the following components of examination of the lungs:
 - 2.1.2.2.5.1.1.1.Inspection/Observation of:
 - 2.1.2.2.5.1.1.1.1. Chest wall excursion
 - 2.1.2.2.5.1.1.2.Palpation of:
 - 2.1.2.2.5.1.1.2.1. tactile fremitus
 - 2.1.2.2.5.1.1.3.Percussion (direct and indirect) for:
 - 2.1.2.2.5.1.1.3.1. hyporesonance
 - 2.1.2.2.5.1.1.3.2. hyperresonance
 - 2.1.2.2.5.1.1.4.Auscultation of:
 - 2.1.2.2.5.1.1.4.1. breath sounds – normal and abnormal
 - 2.1.2.2.5.1.1.4.2. fremitus
 - 2.1.2.2.5.1.1.4.3. rubs
 - 2.1.2.2.5.1.1.5.Special tests

- 2.1.2.2.5.1.1.5.1. match test
- 2.1.2.2.5.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.5.1.
- 2.1.2.2.5.1.3. Correctly interprets the normal or abnormal findings of each of the exam components in section 2.1.2.2.5.1.when performed upon a patient
- 2.1.2.2.5.1.4. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.5.1.
- 2.1.2.2.5.2.Performance indicators – Attitudes
 - 2.1.2.2.5.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.5.2.2. Communicates effectively with the patient
 - 2.1.2.2.5.2.3. Is attentive to the patient
 - 2.1.2.2.5.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.5.2.5. Is sensitive to the patient’s discomfort during the exam
- 2.1.2.2.5.3.Performance indicators – Skills
 - 2.1.2.2.5.3.1. Utilizes the correct technique for performing each of the components of examination of the lungs listed in section 2.1.2.2.5.1.
 - 2.1.2.2.5.3.2. Recognizes the normal or abnormal findings of each of the exam components in section 2.1.2.2.5.1.when performed upon a patient
 - 2.1.2.2.5.3.3. Utilizes appropriate lung exam components indicated by patient’s chief complaint
 - 2.1.2.2.5.3.4. Performs the lung exam in an appropriate period of time
- 2.1.2.2.6. Abdomen
 - 2.1.2.2.6.1.Performance indicators – Knowledge
 - 2.1.2.2.6.1.1. Understands the correct technique for performing the following components of examination of the abdomen:
 - 2.1.2.2.6.1.1.1.Inspection/Observation
 - 2.1.2.2.6.1.1.1.1. Scars, distension, engorged veins, pulsations, color, rashes, masses
 - 2.1.2.2.6.1.1.2.Auscultation
 - 2.1.2.2.6.1.1.2.1. Bruits, bowel sounds, friction rubs
 - 2.1.2.2.6.1.1.3.Palpation
 - 2.1.2.2.6.1.1.3.1. Normal landmarks, fluctuance, masses and protrusions, rigidity, pulsations, organomegaly, tenderness
 - 2.1.2.2.6.1.1.4.Percussion
 - 2.1.2.2.6.1.1.4.1. Fluctuance, tenderness, rebound tenderness, sounds
 - 2.1.2.2.6.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.6.1.1.
 - 2.1.2.2.6.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.6.1.1.

2.1.2.2.6.2. Performance indicators – Attitudes

- 2.1.2.2.6.2.1. Facilitates patient cooperation with the exam
- 2.1.2.2.6.2.2. Communicates effectively with the patient
- 2.1.2.2.6.2.3. Is attentive to the patient
- 2.1.2.2.6.2.4. Promotes a calm and reassuring atmosphere for the encounter
- 2.1.2.2.6.2.5. Is sensitive to the patient's discomfort during the exam

2.1.2.2.6.3. Performance indicators – Skills

- 2.1.2.2.6.3.1. Utilizes the correct technique for performing each of the components of examination of the abdomen listed in section 2.1.2.2.6.1.1.
- 2.1.2.2.6.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.6.1.1. when performed upon a patient
- 2.1.2.2.6.3.3. Utilizes appropriate abdomen exam components indicated by patient's chief complaint
- 2.1.2.2.6.3.4. Performs the abdominal examination in an appropriate period of time

2.1.2.2.7. Genitourinary

2.1.2.2.7.1. Performance indicators – Knowledge

- 2.1.2.2.7.1.1. Understands the correct technique for performing the following components of examination of the genitourinary system:

2.1.2.2.7.1.1.1. Inspection/Observation

- 2.1.2.2.7.1.1.1.1. Male and female – normal landmarks, lesions, masses, color, inflammation, symmetry, position, discharge

2.1.2.2.7.1.1.2. Palpation

- 2.1.2.2.7.1.1.3. Male and female – normal landmarks, skin lesions, masses, hernias

2.1.2.2.7.1.1.4. Special tests

- 2.1.2.2.7.1.1.4.1. Vaginal examination with speculum – color, lesions, masses, smears

- 2.1.2.2.7.1.1.4.2. Smears, cultures

- 2.1.2.2.7.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.7.1.1.

- 2.1.2.2.7.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.7.1.1.

2.1.2.2.7.2. Performance indicators – Attitudes

- 2.1.2.2.7.2.1. Facilitates patient cooperation with the exam
- 2.1.2.2.7.2.2. Communicates effectively with the patient
- 2.1.2.2.7.2.3. Is attentive to the patient
- 2.1.2.2.7.2.4. Promotes a calm and reassuring atmosphere for the encounter
- 2.1.2.2.7.2.5. Is sensitive to the patient's discomfort during the exam

2.1.2.2.7.3. Performance indicators – Skills

- 2.1.2.2.7.3.1. Utilizes the correct technique for performing each of the components of examination of the genitourinary system listed in section 2.1.2.2.7.1.1.
- 2.1.2.2.7.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.7.1.1. when performed upon a patient
- 2.1.2.2.7.3.3. Utilizes appropriate genitourinary system exam components indicated by patient's chief complaint
- 2.1.2.2.7.3.4. Performs the genitourinary system examination in an appropriate period of time

2.1.2.2.8. Rectal

2.1.2.2.8.1. Performance indicators – Knowledge

- 2.1.2.2.8.1.1. Understands the correct technique for performing the following components of the rectal examination:
 - 2.1.2.2.8.1.1.1. Inspection/Observation
 - 2.1.2.2.8.1.1.1.1. Inflammation, sinuses, fistulas, bulges, lesions, masses
 - 2.1.2.2.8.1.1.2. Palpation
 - 2.1.2.2.8.1.1.2.1. Anus - sphincter size, tone, foreign body, laceration
 - 2.1.2.2.8.1.1.2.2. Rectum – normal landmarks, masses, constrictions, tenderness
 - 2.1.2.2.8.1.1.3. Special tests
 - 2.1.2.2.8.1.1.3.1. Stool guaiac examination
- 2.1.2.2.8.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.8.1.1.
- 2.1.2.2.8.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.8.1.1.

2.1.2.2.8.2. Performance indicators – Attitudes

- 2.1.2.2.8.2.1. Facilitates patient cooperation with the exam
- 2.1.2.2.8.2.2. Communicates effectively with the patient
- 2.1.2.2.8.2.3. Is attentive to the patient
- 2.1.2.2.8.2.4. Promotes a calm and reassuring atmosphere for the encounter
- 2.1.2.2.8.2.5. Is sensitive to the patient's discomfort during the exam

2.1.2.2.8.3. Performance indicators – Skills

- 2.1.2.2.8.3.1. Utilizes the correct technique for performing each of the components of the rectal examination listed in section 2.1.2.2.8.1.1.
- 2.1.2.2.8.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.8.1.1. when performed upon a patient
- 2.1.2.2.8.3.3. Utilizes appropriate rectal exam components indicated by patient's chief
- 2.1.2.2.8.3.4. Performs the rectal examination in an appropriate period of time

2.1.2.2.9. Upper Extremities

2.1.2.2.9.1. Performance indicators – Knowledge

2.1.2.2.9.1.1. Understands the correct technique for performing the following components of examination of the upper and lower extremities:

2.1.2.2.9.1.1.1. Inspection/Observation

2.1.2.2.9.1.1.1.1. Size and symmetry, contour, masses, swelling, skin lesions

2.1.2.2.9.1.1.1.2. Range and quality of motion

2.1.2.2.9.1.1.2. Palpation

2.1.2.2.9.1.1.2.1. Normal landmarks, strength, range and quality of motion including but not limited to tenosynovium, joint quality, tendon sheath, etc.

2.1.2.2.9.1.1.2.2. Superficial and deep sensory parameters

2.1.2.2.9.1.1.3. Percussion

2.1.2.2.9.1.1.3.1. Reflexes – normal and abnormal/pathologic

2.1.2.2.9.1.1.3.2. Superficial and deep sensory parameters

2.1.2.2.9.1.1.4. Special tests

2.1.2.2.9.1.1.4.1. Cutaneous mapping, EMG/NCV, imaging studies, joint fluid analysis

2.1.2.2.9.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.9.1.

2.1.2.2.9.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.9.1.

2.1.2.2.9.2. Performance indicators – Attitudes

2.1.2.2.9.2.1. Facilitates patient cooperation with the exam

2.1.2.2.9.2.2. Communicates effectively with the patient

2.1.2.2.9.2.3. Is attentive to the patient

2.1.2.2.9.2.4. Promotes a calm and reassuring atmosphere for the encounter

2.1.2.2.9.2.5. Is sensitive to the patient's discomfort during the exam

2.1.2.2.9.3. Performance indicators – Skills

2.1.2.2.9.3.1. Utilizes the correct technique for performing each of the components of examination of the upper and lower extremities listed in section 2.1.2.2.9.1.

2.1.2.2.9.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.9.1. when performed upon a patient

2.1.2.2.9.3.3. Utilizes appropriate upper and lower extremity exam components indicated by patient's chief complaint.

2.1.2.2.9.3.4. Performs the upper and lower extremity examination in an appropriate period of time

2.1.2.2.10. Neurologic examination

2.1.2.2.10.1. Performance indicators – Knowledge

2.1.2.2.10.1.1. Understands the correct technique for performing the following components of the neurologic examination:

- 2.1.2.2.10.1.1.1. Inspection/Observation
 - 2.1.2.2.10.1.1.1.1. Cranial Nerves – All
 - 2.1.2.2.10.1.1.1.2. Spasticity, tremors, rigidity, flaccidity, fasciculation
 - 2.1.2.2.10.1.1.1.3. Equilibrium and coordination
 - 2.1.2.2.10.1.1.1.4. Gait – see above section 1.1.5.1.1.5
 - 2.1.2.2.10.1.1.1.5. Autonomic deficit: dyshidrosis, vasospasm, trophic changes, dermatographia
- 2.1.2.2.10.1.1.2. Palpation/Maneuver
 - 2.1.2.2.10.1.1.2.1. Cranial Nerves – VII, IX, XI, XII
 - 2.1.2.2.10.1.1.2.2. Muscle strength, tone and bulk
 - 2.1.2.2.10.1.1.2.3. Clonus
 - 2.1.2.2.10.1.1.2.4. Superficial and deep sensory nerve parameters: Sharp/dull, pain, temperature, vibration, proprioception
 - 2.1.2.2.10.1.1.2.5. Range and quality of motion
- 2.1.2.2.10.1.1.3. Percussion
 - 2.1.2.2.10.1.1.3.1. Deep tendon reflexes
- 2.1.2.2.10.1.1.4. Special tests
 - 2.1.2.2.10.1.1.4.1. Pathologic reflexes – Adult – Babinski, Chaddock, Oppenheim, Gordon
 - 2.1.2.2.10.1.1.4.2. Pathologic reflexes – Pediatric – Babinski, Chaddock, Oppenheim, Gordon, parachute, startle, grasp, Moro
 - 2.1.2.2.10.1.1.4.3. Romberg
 - 2.1.2.2.10.1.1.4.4. Testing of dysdiadochokinesia – Alternating motion, rebound sign, etc.
 - 2.1.2.2.10.1.1.4.5. Testing of dyssynergia – Finger to nose, heel to shin, etc.
 - 2.1.2.2.10.1.1.4.6. Sensory mapping/Dermatome
 - 2.1.2.2.10.1.1.4.7. Other
- 2.1.2.2.10.1.2. Understands the normal and abnormal findings for each of the exam components listed in section 2.1.2.2.10.1
- 2.1.2.2.10.1.3. Understands the rationale for performing each of the exam components listed in section 2.1.2.2.10.1
- 2.1.2.2.10.2. Performance indicators – Attitudes
 - 2.1.2.2.10.2.1. Facilitates patient cooperation with the exam
 - 2.1.2.2.10.2.2. Communicates effectively with the patient
 - 2.1.2.2.10.2.3. Is attentive to the patient
 - 2.1.2.2.10.2.4. Promotes a calm and reassuring atmosphere for the encounter
 - 2.1.2.2.10.2.5. Is sensitive to the patient’s discomfort during the exam
- 2.1.2.2.10.3. Performance indicators – Skills
 - 2.1.2.2.10.3.1. Utilizes the correct technique for performing each of the components of the neurologic examination listed in section 2.1.2.2.10.1

- 2.1.2.2.10.3.2. Recognizes (correctly interprets) the normal or abnormal findings of each of the exam components in section 2.1.2.2.10.1 when performed upon a patient
 - 2.1.2.2.10.3.3. Utilizes appropriate neurologic exam components indicated by patient's chief complaint
 - 2.1.2.2.10.3.4. Performs the neurologic examination in an appropriate period of time
- 2.2. Formulate an appropriate differential diagnosis of the patient's general medical problem(s), which includes diagnoses in the following tabular ICD-9 subsections (Please refer to Index A for complete listing of appropriate diagnoses)
- 2.2.1. Performance indicators – Knowledge.
 - 2.2.1.1. Understands the history and physical exam findings that would contribute to the formation of a general medical differential diagnosis that includes diagnoses in the following tabular ICD-9 subsections. (Please refer to Index A)
 - 2.2.1.1.1. Infectious and parasitic diseases of the musculoskeletal system (001-139)
 - 2.2.1.1.2. Neoplasms (140-239)
 - 2.2.1.1.3. Endocrine, Nutritional, and Metabolic diseases and Immunity disorders (240-279)
 - 2.2.1.1.4. Mental Disorders (290-319)
 - 2.2.1.1.5. Diseases of the Nervous system and Sense organs (320-389)
 - 2.2.1.1.6. Diseases of the Circulatory System (390-459)
 - 2.2.1.1.7. Diseases of the Genitourinary System (680-686)
 - 2.2.1.1.8. Diseases of the Skin and Subcutaneous tissue (687-709)
 - 2.2.1.1.9. Diseases of the Musculoskeletal System and Connective Tissue (710-739)
 - 2.2.1.1.10. Congenital Anomalies (740-759)
 - 2.2.1.1.11. Certain Conditions originating in the Perinatal period (760-779)
 - 2.2.1.1.12. Symptoms, Signs, and Ill-defined Conditions (780-799)
 - 2.2.1.1.13. Injury and Poisoning (800-999)
 - 2.2.1.2. Understands the etiology and contributing factors for any of the diagnoses in Index A that may impact podiatric management
 - 2.2.1.3. Understands the possible course and individual/public health implications for each of the diagnoses listed in Index A
 - 2.2.1.4. Understands the urgency of management for each of the diagnoses listed in Index A
 - 2.2.2. Performance Indicators-Attitudes.

- 2.2.2.1. Can discuss with the patient any diagnosis that impacts podiatric management included in the differential diagnosis with compassion and appropriate terminology.
 - 2.2.3. Performance indicators – Skills.
 - 2.2.3.1. Charts most likely diagnosis appropriately as well as other possible diagnoses.
 - 2.2.3.2. Reassesses and revises differential diagnosis as indicated during the course of patient evaluation and management.
- 2.3. Recognize the need for (and/or orders) additional diagnostic studies, when indicated, including (see also section 1.2 for diagnostic studies not repeated in this section).
 - 2.3.1. EKG
 - 2.3.1.1. Performance indicators – knowledge
 - 2.3.1.1.1. Understands the general principles of EKG testing including:
 - 2.3.1.1.1.1. rhythm strip evaluation
 - 2.3.1.1.1.2. Holter monitoring
 - 2.3.1.1.1.3. Event monitoring
 - 2.3.1.1.2. Understands normal and abnormal findings that may present on the cardiac studies listed in section 2.3.1.1.1.
 - 2.3.1.1.3. Understands the rationale for ordering cardiac studies
 - 2.3.1.2. Performance indicators – attitudes
 - 2.3.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity
 - 2.3.1.3. Performance indicators – skills
 - 2.3.1.3.1. Recognizes (correctly interprets) the normal or abnormal findings
 - 2.3.1.3.2. Selection of EKG/cardiac testing fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)
 - 2.3.1.3.3. Recognizes when EKG/cardiac testing results indicate further history, physical exam, diagnostic studies or consultation
 - 2.3.2. Medical imaging
 - 2.3.2.1. Plain radiography
 - 2.3.2.1.1. Performance indicators – knowledge
 - 2.3.2.1.1.1. Understands the general principles of radiation physics and safety
 - 2.3.2.1.1.2. Understands the correct technique for plain radiographic views, including:
 - 2.3.2.1.1.2.1. PA and Lateral Chest Xray
 - 2.3.2.1.1.2.2. Skull

- 2.3.2.1.1.2.3. Upper extremity
- 2.3.2.1.1.2.4. KUB
- 2.3.2.1.1.2.5. Pelvis
- 2.3.2.1.1.2.6. Mammography
- 2.3.2.1.1.2.7. Other radiographic contrast studies

2.3.2.1.1.3. Understands normal and abnormal findings that may present on plain radiographic views listed in Section 2.3.2.1.1.2.

2.3.2.1.1.4. Understands the rationale for ordering the plain radiographic views listed in section 2.3.2.1.1.2.

2.3.2.1.1.5. Understands normal and abnormal findings referred to in a medical imaging report

2.3.2.1.1.6. Recognizes when plain film findings or reports indicate further history, physical exam, diagnostic studies, or consultation

2.3.2.1.2. Performance indicators – attitudes

2.3.2.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity

2.3.2.1.3. Performance indicators – skills

2.3.2.1.3.1. Reads plain radiographic films listed in section 2.3.2.1.1.2. in a logical, orderly, and sequential method

2.3.2.1.3.2. Recognizes (correctly interprets) the normal or abnormal findings on each view of section 2.3.2.1.1.2.

2.3.2.1.3.3. Selects appropriate plain film views as indicated by patient's chief complaint

2.3.2.1.3.4. Selection of plain film views fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)

2.3.2.2. Nuclear medicine imaging

2.3.2.2.1. Performance indicators –knowledge

2.3.2.2.1.1. Understands the rationale for ordering the following nuclear medicine imaging studies:

- 2.3.2.2.1.1.1. Total body Technetium 99 bone scan, including Ceretec

- 2.3.2.2.1.1.2. Gallium scan
- 2.3.2.2.1.1.3. Indium WBC scan
- 2.3.2.2.1.1.4. V/Q scan
- 2.3.2.2.1.1.5. PET scan (positron emission tomography)
- 2.3.2.2.1.1.6. SPECT scan (single photon emission computed tomography)
- 2.3.2.2.1.1.7. Thallium perfusion scan
- 2.3.2.2.1.1.8. Other
- 2.3.2.2.1.2. Understands normal and abnormal findings that may present on the nuclear medicine imaging studies listed in section 2.3.2.2.1.1.
- 2.3.2.2.1.3. Correctly interprets the normal or abnormal findings on the nuclear medicine imaging in section 2.3.2.2.1.1.
- 2.3.2.2.1.4. Understands normal and abnormal findings referred to in a medical imaging report
- 2.3.2.2.1.5. Recognizes when nuclear medicine imaging findings or reports listed in section 2.3.2.2.1.1. indicate further history, physical exam, diagnostic studies, or consultation.
- 2.3.2.2.2. Performance indicators – attitudes
 - 2.3.2.2.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 2.3.2.2.3. Performance indicators – skills
 - 2.3.2.2.3.1. Recognizes the normal or abnormal findings on the nuclear medicine imaging in section 2.2.6.3.2.1
 - 2.3.2.2.3.2. Selects appropriate nuclear medicine imaging as indicated by patient's medical signs and symptoms.
 - 2.3.2.2.3.3. Selection of nuclear medicine imaging fits the overall management of the patient in terms of evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4)

2.3.2.3. MRI

- 2.3.2.3.1. Performance indicators – knowledge
 - 2.3.2.3.1.1. Understands the rationale for ordering MR imaging for non-lower extremity

abnormalities including but not limited to: brain, abdomen, heart and spine.

2.3.2.3.1.2. Understands normal and abnormal findings referred to in a medical imaging report

2.3.2.3.1.3. Recognizes when MR findings or reports indicate further history, physical exam, diagnostic studies, or consultation.

2.3.2.3.2. Performance indicators – attitudes.

2.3.2.3.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.

2.3.2.3.3. Performance indicators – skills

2.3.2.3.3.1. Selection of lumbar spine MR fits the overall management of the patient in terms of appropriateness, evaluation sequence, timeliness, and cost-effectiveness (see also section 3.4).

2.3.2.4. CT.

2.3.2.4.1. Performance indicators – knowledge

2.3.2.4.1.1. Understands the rationale for ordering CT imaging for non-lower extremity abnormalities including but not limited to: head, abdomen, heart and spine

2.3.2.4.1.2. Understands normal and abnormal findings referred to in a medical imaging report

2.3.2.4.1.3. Recognizes when CT findings or reports indicate further history, physical exam, diagnostic studies, or consultation.

2.3.2.4.2. Performance indicators – attitudes.

2.3.2.4.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.

2.3.2.5. Diagnostic ultrasound.

2.3.2.5.1. Performance indicators – knowledge.

2.3.2.5.1.1. Understands the rationale for ordering non-lower extremity diagnostic ultrasound including but not limited to: abdominal, cardiac, and pelvic regions.

2.3.2.5.1.2. Understands normal and abnormal findings referred to in a medical imaging report.

- 2.3.2.5.1.3. Recognizes when diagnostic ultrasound findings or reports indicate further history, physical exam, diagnostic studies, or consultation
 - 2.3.2.5.2. Performance indicators – attitudes.
 - 2.3.2.5.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity
 - 2.3.3. Laboratory studies. – **SEE SECTION 1.2.2**
 - 2.3.4. Other diagnostic studies
 - 2.3.4.1. Performance indicators - knowledge
 - 2.3.4.1.1. Understands the rationale for ordering diagnostic tests other than those listed in sections 2.2.1. through 2.2.7 that may be utilized in the evaluation of the patient’s general medical status, including but not limited to:
 - 2.3.4.1.1.1.1. intake and output (I&Os)
 - 2.3.4.1.1.1.2. EEG
 - 2.3.4.1.1.1.3. allergy / patch testing
 - 2.3.4.1.1.1.4. pathology
 - 2.3.4.1.1.1.5. pulmonary function tests
 - 2.3.4.1.1.1.6. diagnostic endoscopy
 - 2.3.4.1.1.1.7. gastrointestinal function tests
 - 2.3.4.1.1.1.8. cardiac function tests
 - 2.3.4.1.1.1.9. other
 - 2.3.4.1.1.2. Understands normal and abnormal findings referred to in a report or result
 - 2.3.4.1.1.3. Recognizes when findings or reports indicate further history, physical exam, diagnostic studies, or consultation.
 - 2.3.4.1.2. Performance indicators – attitudes
 - 2.3.4.1.2.1. Recognizes and addresses patient concerns with safety, comfort, and medical necessity.
- 2.4. **Formulate and implement an appropriate plan of management, when indicated, including:**
- 2.4.1. Appropriate therapeutic intervention
 - 2.4.1.1. Performance indicators – Knowledge
 - 2.4.1.1.1. Understands the indications and contraindications for general therapeutic intervention including:
 - 2.4.1.1.1.1. Perioperative medical/surgical management of patients with the following:
 - 2.4.1.1.1.1.1. Infectious Disease

- 2.4.1.1.1.1.2. Neoplasms
- 2.4.1.1.1.1.3. Endocrine/Nutritional/
Metabolic/Immune
Disorders
- 2.4.1.1.1.1.4. Blood and Blood
Forming Organ Disorders
- 2.4.1.1.1.1.5. Mental Disorders
- 2.4.1.1.1.1.6. Nervous System/Sense
Organs Disorders
- 2.4.1.1.1.1.7. Cardiovascular Disease
- 2.4.1.1.1.1.8. Respiratory Disease
- 2.4.1.1.1.1.9. Digestive Disorders
- 2.4.1.1.1.1.10. Genitourinary Disorders
- 2.4.1.1.1.1.11. Pregnancy
- 2.4.1.1.1.1.12. Skin and subcutaneous
tissue disorders
- 2.4.1.1.1.1.13. Concurrent
musculoskeletal disorders
- 2.4.1.1.1.1.14. Polytrauma
- 2.4.1.1.1.2. Inpatient and outpatient medical/
surgical management – Acute and
Subacute – of patients with the
following:
 - 2.4.1.1.1.2.1. Infectious Disease
 - 2.4.1.1.1.2.2. Neoplasms
 - 2.4.1.1.1.2.3. Endocrine/Nutritional/
Metabolic/Immune
Disorders
 - 2.4.1.1.1.2.4. Blood and Blood
Forming Organ Disorders
 - 2.4.1.1.1.2.5. Mental Disorders
 - 2.4.1.1.1.2.6. Nervous System/Sense
Organs Disorders
 - 2.4.1.1.1.2.7. Cardiovascular Disease
 - 2.4.1.1.1.2.8. Respiratory Disease
 - 2.4.1.1.1.2.9. Digestive Disorders
 - 2.4.1.1.1.2.10. Genitourinary Disorders
 - 2.4.1.1.1.2.11. Pregnancy
 - 2.4.1.1.1.2.12. Skin and subcutaneous
tissue disorders
 - 2.4.1.1.1.2.13. Concurrent
musculoskeletal disorders
 - 2.4.1.1.1.2.14. Polytrauma
- 2.4.1.1.1.3. Basic Life Support
- 2.4.1.1.1.4. Advanced Cardiac Life Support
- 2.4.1.1.1.5. Advanced Trauma Life Support

- 2.4.1.1.2. Understands the technical aspects of general therapeutic intervention for the entities listed in section 2.4.1.1.1.
- 2.4.1.1.3. Understands the instrument and material needs for the therapeutic intervention
- 2.4.1.1.4. Understands the normal and abnormal interactions between therapeutic modalities
- 2.4.1.2. Performance indicators – Attitudes
 - 2.4.1.2.1. Recognizes and addresses patient concerns regarding therapeutic intervention
 - 2.4.1.2.2. Recognizes physical, psychological and social patient factors that may impact therapeutic management
- 2.4.1.3. Performance indicators – Skills
 - 2.4.1.3.1. BLS
 - 2.4.1.3.2. ACLS
 - 2.4.1.3.3. ATLS
 - 2.4.1.3.4. Establishes IV access
 - 2.4.1.3.5. Performs core surgical skills
 - 2.4.1.3.6. Orders appropriate perioperative medical care
 - 2.4.1.3.7. Orders appropriate inpatient medical care
 - 2.4.1.3.8. Orders appropriate ancillary therapeutic services including but not limited to:
 - 2.4.1.3.8.1. physical and occupational therapy
 - 2.4.1.3.8.2. wound care
 - 2.4.1.3.8.3. chronic pain management
 - 2.4.1.3.8.4. psychosocial services
 - 2.4.1.3.8.5. assistive devices
 - 2.4.1.3.8.6. other
- 2.4.2. Appropriate consultations and /or referrals
 - 2.4.2.1. Performance indicators – Knowledge
 - 2.4.2.1.1. Recognizes when consultation with another medical specialist is necessary for either diagnosis or management
 - 2.4.2.1.2. Recognizes when referral to a medical specialist is necessary for either diagnosis or management
 - 2.4.2.1.3. Understands appropriate written and verbal communication methods in obtaining consultation or referral
 - 2.4.2.1.4. Interprets consultation report and/or recommendations appropriately
 - 2.4.2.1.5. Selection of consultation and/or referral fits the overall management of the patient in terms of evaluation or management sequence, timeliness, and cost-effectiveness (see also section 3.4)

- 2.4.2.1.6. Recognizes when consultation results indicate further history, physical exam, diagnostic studies, therapeutic intervention or further consultation
- 2.4.2.2. Performance indicators – Attitudes
 - 2.4.2.2.1. Recognizes and addresses patient concerns regarding medical necessity of further consultation and/or referral
- 2.4.2.3. Performance indicators – Skills
 - 2.4.2.3.1. Utilizes effective written/oral communication skills when requesting consultation or referral
- 2.4.3. Appropriate general medical health promotion and education
 - 2.4.3.1. Performance indicators – Knowledge
 - 2.4.3.1.1. Understands the indications for general medical health promotion and education, when appropriate, including:
 - 2.4.3.1.1.1. disease prevention related to general medical disease states, including but not limited to diabetes mellitus
 - 2.4.3.1.1.2. disease prevention related to substance abuse including tobacco, alcohol, and illegal substances
 - 2.4.3.1.2. Understands the natural history of diseases including etiologic and contributory factors and associated preventive measures
 - 2.4.3.1.3. Understands the methodologies for communicating health promotion and education (verbal, written, other media)
 - 2.4.3.2. Performance indicators – Attitudes
 - 2.4.3.2.1. Takes care to ascertain patient understanding
 - 2.4.3.3. Performance indicators – Skills
 - 2.4.3.3.1. Utilizes effective communication skills (verbal, written, other media) in general medical health promotion and education

3. Practice with professionalism, compassion, and concern, in a legal, ethical, and moral fashion.

- 3.1. Abides by state and federal laws governing the practice of podiatric medicine and surgery.
 - 3.1.1. Performance Indicators-Knowledge
 - 3.1.1.1. Understands DEA regulations.
 - 3.1.1.2. Understands Stark regulations.
 - 3.1.1.3. Understands individual state practice acts.
 - 3.1.1.4. Understands OSHA regulations.
 - 3.1.1.5. Understands Americans with Disabilities Act.
 - 3.1.1.6. Understands regulations and requirements in the operations of health care organizations in such areas as liability, trade restraint, conflict of interest, privileging, credentialing, certification practices, CME, confidentiality, discrimination, and unionism.
 - 3.1.2. Performance Indicators-Attitudes
 - 3.1.2.1. Avoid substance abuse.
 - 3.1.2.2. Recognize and address substance abuse or fraud in health professionals.
 - 3.1.2.3. Recognize and uphold patient confidentiality.
 - 3.1.2.4. Avoids fraudulent and criminal activities.
- 3.2. Practices and abides by the principles of informed consent
 - 3.2.1. Performance Indicators – Knowledge
 - 3.2.1.1. Understands what constitutes informed consent
 - 3.2.1.2. Understands circumstances under which informed consent can or cannot be obtained
 - 3.2.1.3. Understands issues of legal guardianship in relation to informed consent
 - 3.2.2. Performance Indicators – Attitudes
 - 3.2.2.1. Exhibits sensitivity to patients' comprehension and inquiries
 - 3.2.3. Performance Indicators - Skills
 - 3.2.3.1. Obtains informed consent
 - 3.2.3.2. Appropriately documents informed consent
- 3.3. Understand and respects the ethical boundaries of interactions with patients, colleagues and employees.
 - 3.3.1. Performance Indicators-Knowledge
 - 3.3.1.1. Knows how to access resources for ethical problems.
 - 3.3.1.2. Aware of parameters of informed consent.
 - 3.3.1.3. Understands the principles used to direct ethical decision-making in complex patient care circumstances, including those that may arise at the beginning and end of life.
 - 3.3.1.4. Knows how to proceed when a patient refuses a recommended intervention or requests ineffective or harmful treatment.
 - 3.3.1.5. Understands the ethical principles that underlie a physician's fiduciary relationship with a patient.
 - 3.3.2. Performance Indicators-Attitudes
 - 3.3.2.1. Maintains patient confidentiality.
 - 3.3.2.2. Practices with the best interests of the patient in mind.
 - 3.3.2.3. Applies the principles of informed consent.

- 3.3.2.4. Demonstrates a commitment to ethical principles pertaining to provision or withholding of clinical care.
- 3.3.2.5. Aware of one's own cultural attributes and biases and how they impact others.
- 3.3.2.6. Utilizes sound judgment as a basis for accountability to the patient, to society, and to the professional by fulfilling all agreements, both written and implied.
- 3.4. Demonstrates professional humanistic qualities.
 - 3.4.1. Performance Indicators-Attitudes
 - 3.4.1.1. Demonstrates compassion, sensitivity and respect in interactions with patients and families.
 - 3.4.1.2. Accepts responsibility.
 - 3.4.1.3. Demonstrates reliability and leadership.
 - 3.4.1.4. Is well-organized, punctual and efficient.
 - 3.4.1.5. Embraces self-learning and professional development skills.
 - 3.4.1.6. Is aware of one's own limitations of knowledge, experience, and skills.
 - 3.4.1.7. Accepts criticism, performs realistic self-assessments, and develops and implements a plan that addresses their personal learning needs..
 - 3.4.1.8. Personifies honesty and integrity through one's behaviors.
 - 3.4.1.9. Advocates for quality patient care.
 - 3.4.1.10. Assists patients in dealing with healthcare system complexities.
 - 3.4.1.11. Maintains a sustained commitment to service by accepting inconvenience to meet patients' needs.
 - 3.4.1.12. Volunteers one's skills and expertise to advance the welfare of patients and community.
 - 3.4.1.13. Behaves with high regard and respect for colleagues, others members of the health care team, and patients and their families.
- 3.5. Demonstrates ability to formulate a methodical and comprehensive treatment plan with appreciation of health care costs.
 - 3.5.1. Performance Indicators-Knowledge
 - 3.5.1.1. Understands appropriate treatment modalities.
 - 3.5.1.2. Awareness of the costs of comparative therapies.
 - 3.5.1.3. Studies and understands evidence-based practice patterns.
 - 3.5.1.4. Studies and understands "best practices" and "preferred provider guidelines".
 - 3.5.1.5. Carries over the knowledge performance indicators required in the first section.
 - 3.5.1.6. Understands the relative costs of applied diagnostic and therapeutic interventions.
 - 3.5.2. Performance Indicators-Attitudes
 - 3.5.2.1. Uses an evidence-based approach to therapeutic intervention.
 - 3.5.2.2. Derives a treatment plan based upon a thorough history, physical examination, and appropriate diagnostic tests.
 - 3.5.2.3. Adheres to the principle "above all else, do no harm" in formulating and applying a treatment plan.

- 3.5.2.4. Uses a treatment approach that logically progresses from less interventional (conservative) to more interventional (surgical) when applicable.
- 3.5.2.5. Uses a treatment approach that considers cost-to-benefit and chooses the least costly, most effective therapeutic approach when applicable.
- 3.5.2.6. Uses a comprehensive treatment approach that responds to the etiologic factors as well as resultant pathology when applicable.

4. Demonstrate the ability to communicate effectively and function in a multi-disciplinary setting.

- 4.1. Communicate in oral and written form with patients, colleagues, payers and the public
 - 4.1.1. Performance Indicators-Attitudes
 - 4.1.1.1. Teaches effectively to ensure patient and family understand rationale for management plan, expected outcomes, and potential problems.
 - 4.1.1.2. Utilizes effective methods to modify behavior and enhance compliance.
 - 4.1.1.3. Involves patient and family in coordinating decisions.
 - 4.1.1.4. Patiently reinforces learning for patients and family.
 - 4.1.1.5. Creates and sustains therapeutic relationships with patients.
 - 4.1.1.6. Demonstrates attentiveness, active listening and good interviewing skills.
 - 4.1.1.7. Obtains essential data for decision analysis.
 - 4.1.1.8. Provides the opportunity for participants to request, provide, and receive information.
 - 4.1.1.9. Able to ask questions and provide information using language that is understandable.
 - 4.1.1.10. Learns and applies strategies for dealing with individuals who present significant communication challenges such as domination, anger, confusion, or an ethno-cultural background different than one's own.
 - 4.1.1.11. Effectively facilitates conflict resolution.
 - 4.1.1.12. Understands collegiality and interpersonal relationships with colleagues.
 - 4.1.1.13. Discuss pertinent aspects of patients' condition with consultant.
 - 4.1.1.14. Demonstrates caring and respectful behavior when interacting with patients.
 - 4.1.1.15. Recognizes and responds appropriately to nonverbal communication.
 - 4.1.1.16. Negotiates a mutually agreed upon treatment plan.
 - 4.1.1.17. Communicates with clerical staff and nursing staff in a manner that fosters mutual respect and facilitates an effectively run practice.
 - 4.1.1.18. Communicates with colleagues and other professionals on the health care team in a manner that fosters mutual respect and facilitates the effective handing of patient care issues.
 - 4.1.1.19. Effectively communicates by telephonic and electronic means.
 - 4.2. Is able to partner with health care managers and health care providers to assess, coordinate and improve health care.
 - 4.2.1. Performance Indicators-Knowledge
 - 4.2.1.1. Understands the areas of expertise or other health care providers.
 - 4.2.1.2. Knows efficient methods to coordinate care among disciplines.
 - 4.2.2. Performance Indicators-Attitudes
 - 4.2.2.1. Distinguishes when it is appropriate to refer to other health care providers.
 - 4.2.2.2. Communicates and collaborates effectively with other members of health care team.
 - 4.2.2.3. Refers efficiently for consultations, diagnostic tests, procedures, and therapeutic intervention.
 - 4.2.2.4. Facilitates team approach to develop and implement a preventative/therapeutic plan.

- 4.2.2.5. Recognize team members' area of expertise and show respect for the opinions and roles of individual team members, both physicians and non-physicians.
- 4.2.2.6. Participates in the team task by contributing one's own expertise, eliciting information, and providing feedback.
- 4.3. Maintains appropriate medical records.
 - 4.3.1. Performance Indicators-Knowledge
 - 4.3.1.1. Understands medical record components to include face sheet, history and physical, admit note, progress note, operative note, operative report, and discharge summary.
 - 4.3.1.2. Understands appropriate documentation for reporting adverse occurrences.
 - 4.3.1.3. Understands advanced directives and power of attorney issues.
 - 4.3.2. Performance Indicators-Skills
 - 4.3.2.1. Completes medical record components (see didactic indicators) in appropriate format and detail.
 - 4.3.2.2. Completes medical record components in a timely fashion.
 - 4.3.2.3. Updates the medical problem list and medication list at each visit.

5. Has the capacity to manage individuals and populations in a variety of socioeconomic and health care settings.

- 5.1. Demonstrate an understanding of the psychosocial and healthcare needs for patients in all life stages: pediatric through geriatric
 - 5.1.1. Performance Indicators-Attitudes
 - 5.1.1.1. Recognizes level of patient understanding of illness, the rationale for the management plan, expected outcomes and potential economic and social problems.
 - 5.1.1.2. Seeks the appropriate alternative decision maker when a patient lacks satisfactory decision-making abilities.
 - 5.1.1.3. Knows how to proceed when a patient refuses a recommended intervention or requests ineffective or harmful treatment.
 - 5.1.1.4. Knows how to determine when a treatment has failed or succeeded and when to change.
 - 5.1.1.5. Applies principles of age-specific diagnostics and therapeutics.
- 5.2. Demonstrates sensitivity and responsiveness to cultural values, behaviors, and preferences of their patients when providing care to persons whose race, ethnicity, nation of origin, religion, gender, or sexual orientation is different from their own.
 - 5.2.1. Performance Indicators-Attitudes
 - 5.2.1.1. Is aware of how one's own cultural values, assumptions and beliefs affect patient care and clinical decision-making.
 - 5.2.1.2. Demonstrate sensitivity and respect when interacting with individuals whose culture is different from our own.
 - 5.2.1.3. Exhibits a willingness and tendency to learn and apply culture-specific knowledge to the care of patients.
 - 5.2.1.4. Advocates for quality patient care and assists patients in dealing with system complexities.
 - 5.2.1.5. Facilitates cultural sensitization for office/clinic staff.
 - 5.2.1.6. Understands all cultural systems are sources of beliefs about health, recognition or symptoms, communication about symptoms, and treatment.
 - 5.2.1.7. Uses the assistance of family members, translators/interpreters, and other community resources and advocacy groups.
 - 5.2.1.8. Conducts history, physical examination, and diagnostic and therapeutic interventions in a culturally sensitive manner.
- 5.3. Demonstrate Understands public health concepts, health promotion and disease prevention
 - 5.3.1. Performance Indicators-Attitudes
 - 5.3.1.1. Provides health care services aimed at preventing health problems or maintaining health.
 - 5.3.1.2. Know and apply basic and clinically supportive sciences, which are appropriate to their discipline.
 - 5.3.1.3. Analyzes the socio-cultural dimensions of one's own practice site and the implications for practice managements.
 - 5.3.1.4. Incorporates the principles and practices of health maintenance into each patient encounter where appropriate.

- 5.3.1.5. Obtains data about the community in which they work pertaining to the population/community's demographics and culture and its epidemiology of major health problems.
- 5.3.1.6. Understands and applies clinical decision analysis, including identifying alternative actions and possible outcomes, developing a decision tree, and assigning probabilities to outcomes.
- 5.3.1.7. Is aware of socio-cultural risk factors and interventions that can be used to modify these risk factors.
- 5.3.1.8. Is aware of clinical problems having high mortality and morbidity rates.
- 5.3.1.9. Is aware of clinical problems relating to the nation's health promotion and disease prevention objectives.
- 5.4. Advocates for quality patient care and assists patients in dealing with system complexities.
 - 5.4.1. Performance Indicators-Knowledge
 - 5.4.1.1. Understands the interactions and roles of all players in healthcare delivery.
 - 5.4.1.2. Understands mechanisms for addressing resource and care delivery issues.
 - 5.4.2. Performance Indicators-Attitudes
 - 5.4.2.1. Places a priority on quality patient care above all else.
 - 5.4.2.2. Assists patients in addressing resource and healthcare delivery issues.

6. Has the capacity to manage a podiatric practice in a multitude of healthcare delivery settings

- 6.1. Demonstrate familiarity with utilization management and quality improvement.
 - 6.1.1. Performance Indicators-Knowledge
 - 6.1.1.1. Knows the process of cost-benefit analysis.
 - 6.1.1.2. Understand the use of comparative data to measure variation in practice and thus identify best practices.
 - 6.1.1.3. Understands the methodology of quality improvement and utilization management.
 - 6.1.1.4. Know how to measure patient satisfaction.
 - 6.1.1.5. Know the methods used to develop practice guidelines and critical pathways and how physicians use them in the management of disease.
 - 6.1.1.6. Know the respective roles of the regulatory agencies involved in maintaining quality of medical care including JCAHO, NCQA, HCFA and state health care councils.
 - 6.1.1.7. Knows the methodology of outcomes measurement.
- 6.2. Understands health care reimbursement.
 - 6.2.1. Performance Indicators-Knowledge
 - 6.2.1.1. Knows the basic systems of payment including indemnity plans, managed indemnity plans, and capitation.
 - 6.2.1.2. Knows the principal types of payers and their methodologies for healthcare reimbursement including Medicare, Medicaid, B+/BS, worker's compensation, insurance companies (both for-profit and not-for-profit).
 - 6.2.1.3. Knowledge of diagnostic (ICD) and procedural (CPT) codes.
 - 6.2.2. Performance Indicators-Attitudes
 - 6.2.2.1. Utilizes diagnostic and procedural codes effectively.
- 6.3. Understands insurance issues including professional and general liability, disability, and Workers Compensation
- 6.4. Understands medical-legal considerations involving health care delivery.
 - 6.4.1. Performance Indicators-Knowledge
 - 6.4.1.1. Knows how to inform patients and obtain voluntary consent for a plan of medical care and specific diagnostic and therapeutic interventions.
 - 6.4.1.2. Understands the legal basis of the physician-patient relationship.
 - 6.4.1.3. Understands the concepts of standards of care.
 - 6.4.1.4. Understands how to identify the appropriate alternate decision maker when a patient lacks satisfactory decision-making abilities.
 - 6.4.1.5. Understands medical malpractice issues including available carriers, types of coverage, how to respond to a claim of malpractice, limits of coverage, insurance tails, and national database.
- 6.5. Demonstrate understanding of common business practices
 - 6.5.1. Performance Indicators-Knowledge
 - 6.5.1.1. Understands components and process of establishing an employee handbook.
 - 6.5.1.2. Understands components and process of creating a business plan.

- 6.5.1.3. Know how the forms of medical practice differ from one another, including solo practice, group practice, preferred provider organizations, independent practice associations, or HMOs.
 - 6.5.1.4. Knows the basic business skills important to effective patient care including accounting, personnel management, insurance billing, evaluating contracts, reading financial statements and using basic spreadsheet and databases.
 - 6.5.1.5. Understands legal and financial issues pertaining to employment contracts, practice associations and partnerships, purchasing a practice and establishing a practice.
- 6.5.2. Performance Indicators-Attitudes
- 6.5.2.1. Utilizes legal and business professional resources for all pertinent practice decisions.

7. Be professionally inquisitive, life-long learners and teachers utilizing research, scholarly activity and Information technologies to enhance professional knowledge and clinical practice.

- 7.1. Read, interpret, critically examine and present medical and scientific literature
 - 7.1.1. Performance Indicators-Knowledge
 - 7.1.1.1. Understands the designs most commonly used in medical research.
 - 7.1.1.2. Understands the basic concepts underlying inferential statistics.
 - 7.1.2. Performance Indicators-Attitudes
 - 7.1.2.1. Can apply Understands research design and statistical techniques to the critical analysis of research.
 - 7.1.2.2. Regularly reviews, either individually or in group journal club participation, the scientific literature to enhance professional knowledge and patient care.
- 7.2. Design, collect, interpret data and present the findings in a formal study related to podiatric medicine and surgery
 - 7.2.1. Performance Indicators-Knowledge
 - 7.2.1.1. Understands designs most commonly used in medical research proposals e.g. abstract, protocol, objectives, review in literature, methods, recruitment and resources, funding and references.
 - 7.2.1.2. Understands the basic concepts underlying inferential statistics.
 - 7.2.1.3. Understands basic institutional review board (IRB) policies and regulations with special emphasis on protection of human subjects, informed consent of human subjects and issues of confidentiality.
 - 7.2.1.4. Understands the various regulatory agencies associated with medical research and development including:
 - 7.2.1.4.1. National Institute of Health (NIH).
 - 7.2.1.4.2. Department of Health and Human Services (DHHS).
 - 7.2.1.4.3. Office for the Protection of Research Risks (OPRR).
 - 7.2.1.4.4. Office of Research Compliance and Assurance (ORCA).
 - 7.2.1.5. Understands designs most commonly used in medical research proposals, e.g. abstract, protocol, objectives, review in literature, methods, recruitment and resources, funding and references.
 - 7.2.1.6. Understands the basic concepts underlying inferential statistics.
 - 7.2.1.7. Understands basic institutional review board (IRB) policies and regulations with special emphasis on protection of human subjects, informed consent of human subjects and issues of confidentiality.
 - 7.2.1.8. Understands principles for consideration in balancing legally allowable and ethical issues that may arise in medical research involving human subjects.
References:
 - 7.2.1.8.1. The Nuremberg Code.
 - 7.2.1.8.2. The Declaration of Helsinki.
 - 7.2.1.8.3. The Belmont Report.
 - 7.2.1.9. Understands medical associations relative to ethical issues in medical research involving human subjects including:
 - 7.2.1.9.1. Public Responsibility in Medicine and Research (PRIM+R).
 - 7.2.1.9.2. Applied Research Ethics National Association (ARENA).

- 7.2.2. Performance Indicators-Attitudes
 - 7.2.2.1. Can appropriately apply fundamental statistical tests of significance for comparing means and investigating the relationship among variables.
 - 7.2.2.2. Understands principles for consideration in balancing legally allowable and ethical issues that may arise in medical research involving human subjects.
 - 7.2.2.3. Understands Medical Associations relative to ethical issues in medical research involving human subjects e.g. Public Responsibility in Medicine and Research (PRIM+R), Applied Research Ethics National Association (ARENA).
- 7.2.3. Performance Indicators-Skills
 - 7.2.3.1. Completes a formal study in the form of either clinical study, basic science study or outcome study.
 - 7.2.3.2. Prepares a study in publishable form.
- 7.3. Demonstrates information technology (IT) skills in learning, teaching, and clinical practice.
 - 7.3.1. Performance Indicators-Knowledge
 - 7.3.1.1. Know what databases and information sources are available that report results on diagnosis, treatment effectiveness, prognosis, and prevention.
 - 7.3.1.2. Can efficiently search and locate relevant information from computer-based sources.
 - 7.3.1.3. Understands the essential aspects of file organization, information storage, and the basic issues related to computer and copyright law.
 - 7.3.2. Performance Indicators-Attitudes
 - 7.3.2.1. Can make informed decisions regarding the purchase and use of computer equipment and software, including patient-care related services.
 - 7.3.2.2. Can effectively used word processing, spreadsheet, database, desktop publishing, and desktop presentation packages and recognizes how to adapt these tools for medical use.
 - 7.3.2.3. Can identify, evaluate, and select electronic sources of medical information.
 - 7.3.2.4. Can identify, evaluate and select computer-based resources for patient education.
 - 7.3.3. Performance Indicators-Skills
 - 7.3.3.1. Has basic keyboarding and Internet access skills.
 - 7.3.3.2. Can use word processing, spreadsheet, database, desktop publishing and desktop presentation packages and can adapt these tools for medical use.
 - 7.3.3.3. Can appropriately use electronic sources of medical information.
 - 7.3.3.4. Can appropriately use computer-based resources for patient education.
- 7.4. Participate in continuing medical education activities
 - 7.4.1. Performance Indicators-Attitudes
 - 7.4.1.1. Recognizes the role of continuing medical education in the maintenance of competency.
 - 7.4.1.2. Chooses continuing medical education activities based on personal needs and deficiencies.
 - 7.4.1.3. Fulfills hospital, state and certifying board continuing medical education requirements.

Index A – ICD-9 Codes

1. INFECTIOUS AND PARASITIS DISEASES

INTESTINAL INFECTIOUS DISEASES (001-009)

- 001 Cholera
- 002 Typhoid and paratyphoid fevers
- 003 Other salmonella infections
- 004 Shigellosis
- 005 Other food poisoning (bacterial)
- 006 Amebiasis
- 007 Other protozoal intestinal diseases
- 008 Intestinal infections due to other organisms
- 009 Ill-defined intestinal infections

TUBERCULOSIS (010-018)

- 010 Primary tuberculous infection
- 011 Pulmonary tuberculosis
- 012 Other respiratory tuberculosis
- 013 Tuberculosis of meninges and central nervous system
- 014 Tuberculosis of intestines, peritoneum, and mesenteric glands
- 015 Tuberculosis of bones and joints
- 016 Tuberculosis of genitourinary system
- 017 Tuberculosis of other organs
- 018 Miliary tuberculosis

ZOONOTIC BACTERIAL DISEASES (020-027)

- 020 Plague
- 021 Tularemia
- 022 Anthrax
- 023 Brucellosis
- 024 Glanders
- 025 Melioidosis
- 026 Rat-bite fever
- 027 Other zoonotic bacterial diseases

OTHER BACTERIAL DISEASES (030-041)

- 030 Leprosy
- 031 Diseases due to other mycobacteria
- 032 Diphtheria
- 033 Whooping cough
- 034 Streptococcal sore throat and scarlet fever
- 035 Erysipelas
- 036 Meningococcal infection
- 037 Tetanus
- 038 Septicemia

- 039 Actinomycotic infections
- 040 Other bacterial diseases
 - 040.0 Gas gangrene
- 041 Bacterial infection in conditions classified elsewhere and of unspecified site.
 - 041.0 Streptococcus
 - 041.00 Streptococcus, unspecified
 - 041.01 Group A
 - 041.02 Group B
 - 041.03 Group C
 - 041.04 Group D (Enterococcus)
 - 041.05 Group G
 - 041.09 Other Streptococcus
 - 041.1 Staphylococcus
 - 041.10 Staphylococcus, unspecified
 - 041.11 Staphylococcus aureus
 - 041.19 Other Staphylococcus
 - 041.2 Pneumococcus
 - 041.3 Friedländer's bacillus. Infection by *Klebsiella pneumoniae*
 - 041.4 *Escherichia coli* [E.coli]
 - 041.5 *Hemophilus influenzae* [H. influenzae]
 - 041.6 *Proteus (mirabilis) (morganii)*
 - 041.7 *Pseudomonas*
 - 041.8 Other specified bacterial infections
 - 041.81 *Mycoplasma*
 - 041.82 *Bacillus fragilis*
 - 041.83 *Clostridium perfringens*
 - 041.84 Other anaerobes. Gram-negative anaerobes
 - 041.85 Other gram-negative organisms. *Aerobacter aerogenes*. Gram-negative bacteria
- NOS. *Mima polymorpha*. *Serratia*
 - 041.86 *Helicobacter pylori* (H. pylori)
- 041.9 Bacterial infection, unspecified

HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION (042)

- 042 Human immunodeficiency virus [HIV] disease. Acquired Immunodeficiency syndrome. AIDS. AIDS-like syndrome. AIDS-related complex. ARC. HIV infection, symptomatic. Use additional code(s) to identify all manifestations of HIV. Use additional code to identify HIV-2 infection (079.53)

POLIOMYELITIS AND OTHER NON-ARTHROPOD-BORNE VIRAL DISEASES OF CENTRAL NERVOUS SYSTEM (045-049)

- 045 Acute poliomyelitis
- 046 Slow virus infection of central nervous system
- 047 Meningitis due to enterovirus
- 048 Other enterovirus diseases of central nervous system. Boston exanthem
- 049 Other non-arthropod-borne viral diseases of central nervous system

VIRAL DISEASES ACCOMPANIED BY EXANTHEM (050-057)

- 050 Smallpox
- 051 Cowpox and paravaccinia
- 052 Chickenpox
- 053 Herpes zoster
- 054 Herpes simplex
- 055 Measles
- 056 Rubella
- 057 Other viral exanthemata

ARTHROPOD-BORNE VIRAL DISEASES (060-066)

- 060 Yellow fever
- 061 Dengue
- 062 Mosquito-borne viral encephalitis
- 063 Tick-borne viral encephalitis
- 064 Viral encephalitis transmitted by other and unspecified arthropods
- 065 Arthropod-borne hemorrhagic fever
- 066 Other arthropod-borne viral diseases

OTHER DISEASES DUE TO VIRUSES AND CHLAMYDIAE (070-079)

- 070 Viral hepatitis
- 071 Rabies
- 072 Mumps
- 073 Ornithosis
- 074 Specific diseases due to Coxsackie virus
- 076 Trachoma
- 077 Other diseases of conjunctiva due to viruses and Chlamydiae
- 078 Other diseases due to viruses and Chlamydiae
 - 078.0 Molluscum contagiosum
 - 078.1 Viral warts. Viral warts due to Human papillomavirus
 - 078.10 Viral warts, unspecified. Condyloma NOS Verruca: NOS Vulgaris Warts (infectious)
 - 078.11 Condyloma acuminatum
 - 078.19 Other specified viral warts. Genital warts NOS, Verruca plana, plantaris
- 079 Viral and chlamydial infection in conditions classified elsewhere and of unspecified site
- 094.0 Tabes dorsalis; Locomotor ataxia (progressive); Posterior spinal sclerosis (syphilitic); Tabetic neurosyphilis; Use additional code to identify manifestation, as: neurogenic arthropathy [Charcot's joint disease] (713.5)

RICKETTSIOSES AND OTHER ARTHROPOD-BORNE DISEASES (080-088)

- 080 Louse-borne [epidemic] typhus
- 081 Other typhus
- 082 Tick-borne rickettsioses
- 083 Other rickettsioses
- 084 Malaria

- 085 Leishmaniasis
- 086 Trypanosomiasis
- 087 Relapsing fever
- 088 Other arthropod-borne diseases

SYPHILIS AND OTHER VENEREAL DISEASES (090-099)

- 090 Congenital syphilis
- 091 Early syphilis, symptomatic
- 092 Early syphilis, latent
- 093 Cardiovascular syphilis
- 094 Neurosyphilis
- 095 Other forms of late syphilis, with symptoms
- 096 Late syphilis, latent. Syphilis (acquired) without clinical manifestations, with positive serological reaction and negative spinal fluid test, two years or more after infection
- 097 Other and unspecified syphilis
- 098 Gonococcal infections
- 099 Other venereal diseases

OTHER SPIROCHETAL DISEASES (100-104)

- 100 Leptospirosis
- 101 Vincent's angina
- 102 Yaws
- 103 Pinta
- 104 Other spirochetal infection

MYCOSES (110-118)

- 110 Dermatophytosis. Includes: infection by species of Epidermophyton, Microsporum, and Trichophyton tinea, any type except those in 111
 - 110.1 Dermatophytosis of nail; Dermatophytic onychia; Onychomycosis; Tinea unguium
 - 110.4 Dermatophytosis of foot. Athletes foot; Tinea pedis
- 111 Dermatormycosis, other and unspecified
 - 111.0 Pityriasis versicolor. Infection by Malassezia [Pityrosporum] furfur. Tinea flava. Tinea versicolor
 - 111.1 Tinea nigra. Infection by Cladosporium species. Keratomycosis nigricans. Microsporiasis nigra. Pityriasis nigra. Tinea palmaris nigra
 - 111.2 Tinea blanca. Infection by Trichosporon (beigelii) cutaneum. White piedra
 - 111.3 Black piedra. Infection by Piedraia hortai
 - 111.8 Other specified dermatomycoses
 - 111.9 Dermatormycosis, unspecified
- 112 Candidiasis
 - 112.3 Candidiasis, skin and nails. Candidal intertrigo; Candidal onychia; Candidal perionyxis [paronychia]
- 114 Coccidioidomycosis
- 115 Histoplasmosis
- 116 Blastomycotic infection

117 Other mycoses

- 117.4 Mycotic mycetomas. Infection by various genera and species of Ascomycetes and Deuteromycetes, such as Acremonium [Cephalosporium] falciforme, Neotestudina rosatii, Madurella grisea, Madurella mycetomii, Pyrenochaeta romeroi, Zopfia [Leptosphaeria] senegalensis. Madura foot, mycotic Maduromycosis, mycotic**

HELMINTHIASES (120-129)

- 120 Schistosomiasis [bilharziasis]
121 Other trematode infections
122 Echinococcosis
123 Other cestode infection
124 Trichinosis
125 Filarial infection and dracontiasis
126 Ancylostomiasis and necatoriasis
127 Other intestinal helminthiasis
128 Other and unspecified helminthiasis
129 Intestinal parasitism, unspecified**

OTHER INFECTIOUS AND PARASITIC DISEASES (130-136)

- 130 Toxoplasmosis
131 Trichomoniasis
132 Pediculosis and phthirus infestation
133 Acariasis
134 Other infestation
135 Sarcoidosis
136 Other and unspecified infectious and parasitic diseases
 **136.0 Ainhum. Dactyolysis spontanea
 136.1 Behçet's syndrome****

LATE EFFECTS OF INFECTIOUS AND PARASITIC DISEASES (137-139)

- 137 Late effects of tuberculosis
138 Late effects of acute poliomyelitis
139 Late effects of other infectious and parasitic diseases**

2. NEOPLASMS

MALIGNANT NEOPLASMS OF LIP, ORAL CAVITY, AND PHARYNX (140-149)

- 140 Malignant neoplasm of lip
- 141 Malignant neoplasm of tongue
- 142 Malignant neoplasm of major salivary glands
- 143 Malignant neoplasm of gum
- 144 Malignant neoplasm of floor of mouth
- 145 Malignant neoplasm of other and unspecified parts of mouth
- 146 Malignant neoplasm of oropharynx
- 147 Malignant neoplasm of nasopharynx
- 148 Malignant neoplasm of hypopharynx
- 149 Malignant neoplasm of other and ill-defined sites within the lip, oral cavity, and pharynx

MALIGNANT NEOPLASM OF DIGESTIVE ORGANS AND PERITONEUM (150-159)

- 150 Malignant neoplasm of esophagus
- 151 Malignant neoplasm of stomach
- 152 Malignant neoplasm of small intestine, including duodenum
- 153 Malignant neoplasm of colon
- 154 Malignant neoplasm of rectum, rectosigmoid junction, and anus
- 155 Malignant neoplasm of liver and intrahepatic bile ducts
- 156 Malignant neoplasm of gallbladder and extrahepatic bile ducts
- 157 Malignant neoplasm of pancreas
- 158 Malignant neoplasm of retroperitoneum and peritoneum
- 159 Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum

MALIGNANT NEOPLASM OF RESPIRATORY AND INTRATHORACIC ORGANS (160-165)

- 160 Malignant neoplasm of nasal cavities, middle ear, and accessory sinuses
- 161 Malignant neoplasm of larynx
- 162 Malignant neoplasm of trachea, bronchus, and lung
- 163 Malignant neoplasm of pleura
- 164 Malignant neoplasm of thymus, heart, and mediastinum
- 165 Malignant neoplasm of other and ill-defined sites within the respiratory system and intrathoracic organs

MALIGNANT NEOPLASM OF BONE, CONNECTIVE TISSUE, SKIN, AND BREAST (170-176)

- 170 Malignant neoplasm of bone and articular cartilage
 - 170.2 Vertebral column
 - 170.3 Ribs, sternum, and clavicle
 - 170.4 Scapula and long bones of upper limb
 - 170.5 Short bones of upper limb

- 170.6 Pelvic bones, sacrum, coccyx
- 170.7 Long bones of lower limb
 - 170.7.1 Lower limb, site unspecified (0)
 - 170.7.2 Femur NOS (1)
 - 170.7.3 Femur, proximal epiphysis and/or metaphysis (2)
 - 170.7.4 Femur, diaphysis (3)
 - 170.7.5 Femur, distal, metaphysis and/or epiphysis (4)
 - 170.7.6 Tibia NOS (5)
 - 170.7.7 Tibia, proximal, epiphysis and/or metaphysis (6)
 - 170.7.8 Tibia, diaphyseal or distal (7)
 - 170.7.9 Fibula (8)
 - 170.7.10 Multiple sites (9)
- 170.8 Short bones of lower limb
 - 170.8.1 Bones of foot, site unspecified (0)
 - 170.8.2 Talus (1)
 - 170.8.3 Calcaneus (2)
 - 170.8.4 Navicular (3)
 - 170.8.5 Cuboid (4)
 - 170.8.6 Cuneiform 1, 2, or 3 (5)
 - 170.8.7 Metatarsal 1 through 5 (6)
 - 170.8.8 Phalanges (7)
 - 170.8.9 Multiple sites (9)
- 170.9 Bone and articular cartilage, site unspecified
- 171 Malignant neoplasm of connective and other soft tissue
 - 171.0 Head, face and neck
 - 171.2 Upper limb, including shoulder
 - 171.3 Lower limb, including hip
 - 171.4 Pelvis
 - 171.5 Trunk, unspecified
- 172 Malignant melanoma of skin
- 173 Other malignant neoplasm of skin
- 174 Malignant neoplasm of female breast
- 175 Malignant neoplasm of male breast
- 176 Kaposi's sarcoma

MALIGNANT NEOPLASM OF GENITOURINARY ORGANS (179-189)

- 179 Malignant neoplasm of uterus, part unspecified
- 180 Malignant neoplasm of cervix uteri
- 181 Malignant neoplasm of placenta
- 182 Malignant neoplasm of body of uterus
- 183 Malignant neoplasm of ovary and other uterine adnexa
- 184 Malignant neoplasm of other and unspecified female genital organs
- 185 Malignant neoplasm of prostate
- 186 Malignant neoplasm of testis
- 187 Malignant neoplasm of penis and other male genital organs
- 188 Malignant neoplasm of bladder

189 Malignant neoplasm of kidney and other unspecified urinary organs

MALIGNANT NEOPLASM OF OTHER AND UNSPECIFIED SITES (190-199)

190 Malignant neoplasm of eye

191 Malignant neoplasm of brain

192 Malignant neoplasm of other and unspecified parts of nervous system

193 Malignant neoplasm of thyroid gland

194 Malignant neoplasm of other endocrine glands and related structures

195 Malignant neoplasm of other and ill-defined sites

195.4 Upper limb

195.5 Lower limb

195.8 Other specified sites (back, trunk, flank)

196 Secondary and unspecified malignant neoplasm of lymph nodes

197 Secondary malignant neoplasm of respiratory and digestive systems

198 Secondary malignant neoplasm of other specified sites

198.5 Bone and bone marrow (metastatic to)

198.5.1 Skull, face, and mandible (0)

198.5.2 Vertebral column (1)

198.5.3 Scapula, ribs, sternum, clavicle (2)

198.5.4 Humerus (3)

198.5.5 Radius, ulna (4)

198.5.6 Other bones of upper limb, carpal, metacarpal, phalanges (5)

198.5.7 Pelvis, sacrum, coccyx (6)

198.5.8 Femur (7)

198.5.9 Other bones of lower limb (8)

198.5.10 Multiple bones (9)

199 Malignant neoplasm without specification of site

MALIGNANT NEOPLASM OF LYMPHATIC AND HEMATOPOIETIC TISSUE (200-208)

200 Lymphosarcoma and reticulosarcoma

201 Hodgkin's disease

202 Other malignant neoplasms of lymphoid and histiocytic tissue

203 Multiple myeloma and immunoproliferative neoplasms

204 Lymphoid leukemia

205 Myeloid leukemia

206 Monocytic leukemia

207 Other specified leukemia

208 Leukemia of unspecified cell type

BENIGN NEOPLASMS (210-229)

210 Benign neoplasm of lip, oral cavity, and pharynx

211 Benign neoplasm of other parts of digestive system

212 Benign neoplasm of respiratory and intrathoracic organs

213 Benign neoplasm of bone and articular cartilage

213.0 Bones of skull and face

- 213.1 Lower jaw bone
- 213.2 Vertebral column, excluding sacrum and coccyx
- 213.3 Ribs, sternum, and clavicle
- 213.4 Scapula and long bones of upper limb
- 213.5 Short bones of upper limb
- 213.6 Pelvic bones, sacrum, and coccyx
- 213.7 Long bones of lower limb
 - 213.7.1 Lower limb, site unspecified (0)
 - 213.7.2 Femur NOS (1)
 - 213.7.3 Femur, proximal epiphysis and/or metaphysis (2)
 - 213.7.4 Femur, diaphysis (3)
 - 213.7.5 Femur, distal, metaphysis and/or epiphysis (4)
 - 213.7.6 Tibia NOS (5)
 - 213.7.7 Tibia, proximal, epiphysis and/or metaphysis (6)
 - 213.7.8 Tibia, diaphyseal or distal (7)
 - 213.7.9 Fibula (8)
 - 213.7.10 Multiple sites (9)
- 213.8 Short bones of lower limb
 - 213.8.1 Bones of foot, site unspecified (0)
 - 213.8.2 Talus (1)
 - 213.8.3 Calcaneus (2)
 - 213.8.4 Navicular (3)
 - 213.8.5 Cuboid (4)
 - 213.8.6 Cuneiform 1, 2, or 3 (5)
 - 213.8.7 Metatarsal 1 through 5 (6)
 - 213.8.8 Phalanges (7)
 - 213.8.9 Multiple sites (8)
- 214 Lipoma
 - 214.0 Skin and subcutaneous tissue of face
 - 214.1 Other skin and subcutaneous tissue
 - 214.2 Intrathoracic organs
 - 214.3 Intra-abdominal organs
 - 214.4 Spermatic cord
 - 214.5 Other specified sites
 - 214.6 Lipoma, site unspecified
- 215 Other benign neoplasm of connective and other soft tissue
- 216 Benign neoplasm of skin
- 217 Benign neoplasm of breast
- 218 Uterine leiomyoma
- 219 Other benign neoplasm of uterus
- 220 Benign neoplasm of ovary
- 221 Benign neoplasm of other female genital organs
- 222 Benign neoplasm of male genital organs
- 223 Benign neoplasm of kidney and other urinary organs
- 224 Benign neoplasm of eye
- 225 Benign neoplasm of brain and other parts of nervous system

- 226 Benign neoplasm of thyroid glands
- 227 Benign neoplasm of other endocrine glands and related structures
- 228 Hemangioma and lymphangioma, any site
- 229 Benign neoplasm of other and unspecified sites
- 230 Carcinoma in situ of digestive organs
- 231 Carcinoma in situ of respiratory system
- 232 Carcinoma in situ of skin
- 233 Carcinoma in situ of breast and genitourinary system
- 234 Carcinoma in situ of other and unspecified sites

NEOPLASMS OF UNCERTAIN BEHAVIOR (235-238)

- 235 Neoplasm of uncertain behavior of digestive and respiratory systems
- 236 Neoplasm of uncertain behavior of genitourinary organs
- 237 Neoplasm of uncertain behavior of endocrine glands and nervous system
- 238 Neoplasm of uncertain behavior of other and unspecified sites and tissues
- 239 Neoplasm of unspecified nature

3. ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS

DISORDERS OF THYROID GLAND (240-246)

- 240 Simple and unspecified goiter
- 241 Nontoxic nodular goiter
- 242 Thyrotoxicosis with or without goiter
- 243 Congenital hypothyroidism
- 244 Acquired hypothyroidism
- 245 Thyroiditis
- 246 Other disorders of the thyroid

DISEASES OF OTHER ENDOCRINE GLANDS (250-259)

- 250 Diabetes mellitus
 - 0=Type II
 - 1=Type I
 - 2=Type II, uncontrolled
 - 3=Type I, uncontrolled
 - 250.0 Diabetes mellitus without mention of complication
 - 250.1 Diabetes with ketoacidosis
 - 250.2 Diabetes with hyperosmolarity
 - 250.3 Diabetes with other coma
 - 250.4 Diabetes with renal manifestations
 - 250.5 Diabetes with ophthalmic manifestations
 - 250.6 Diabetes with neurologic manifestations
 - 250.7 Diabetes with peripheral circulatory disorders
 - 250.8 Diabetes with other specified manifestations
 - 250.9 Diabetes with unspecified complication
- 251 Other disorders of pancreatic internal secretion
 - 251.0 Hypoglycemic coma
 - 251.1 Other specified hypoglycemia
 - 251.2 Hypoglycemia, unspecified
 - 251.3 Postsurgical hypoinsulinemia
 - 251.4 Abnormality of secretion of glucagons
 - 251.5 Abnormality of secretion of gastrin
- 252 Disorders of parathyroid gland
- 253 Disorders of pituitary gland and its hypothalamic control
- 254 Diseases of thymus gland
- 255 Disorders of adrenal gland
 - 255.0 Cushing's syndrome
 - 255.1 Hyperaldosteronism
 - 255.2 Adrenogenital disorders
 - 255.3 Other corticoadrenal overactivity
 - 255.4 Corticoadrenal insufficiency
 - 255.5 Other adrenal insufficiency

- 255.6 Other adrenal hypofunction
- 255.7 Medulloadrenal hyperfunction
- 255.8 Other specified disorders of adrenal glands
- 256Ovarian dysfunction
- 257Testicular dysfunction
- 258Polyglandular dysfunction and related disorders
- 259Other endocrine disorders
 - 259.4 Dwarfism not elsewhere classified

NUTRITIONAL DEFICIENCIES (260-269)

- 260Kwashiorkor
- 261Nutritional marasmus
- 262Other severe, protein-calorie malnutrition
- 263Other and unspecified protein-calorie malnutrition
- 264Vitamin A deficiency
- 265Thiamine and niacin deficiency states
- 266Deficiency of B-complex components
- 267Ascorbic acid deficiency
- 268Vitamin D deficiency
 - 268.0 Rickets, active
 - 268.1 Rickets, late effect
 - 268.2 Osteomalacia, unspecified
 - 268.3 Unspecified vitamin D deficiency
- 269Other nutritional deficiencies

OTHER METABOLIC AND IMMUNITY DISORDERS (270-279)

- 270Disorders of amino-acid transport
- 271Disorders of carbohydrate transport and metabolism
- 272Disorders of lipid metabolism
- 273Disorders of plasma protein metabolism
- 274Gout
 - 274.0 Gouty arthropathy
 - 274.1 Gouty nephropathy
 - 274.2 Gout with other specified manifestations
- 275Disorders of mineral metabolism
 - 275.3 Disorders of phosphorous metabolism
 - 275.4 Disorders of calcium metabolism
- 276Disorders of fluid, electrolyte, and acid-base balance
- 277Other and unspecified disorders of metabolism
 - 277.5 Mucopolysaccharidosis
 - 277.8 Other specified disorders of metabolism
- 278Obesity and other hyperalimenatation
- 279Disorders involving the immune mechanism

4. MENTAL DISORDERS

PSYCHOSES (290-299)

Senile and presenile organic psychotic conditions
Alcoholic psychoses
Drug psychoses
Transient organic psychotic conditions
Other organic psychotic conditions (chronic)
Schizophrenic disorders
Affective psychoses
Paranoid states (Delusional disorders)
Other nonorganic psychoses
Psychoses with origin specific to childhood

NEUROTIC DISORDERS, PERSONALITY DISORDERS, AND OTHER NONPSYCHOTIC MENTAL DISORDERS (300-316)

300 Neurotic disorders

300.0 Anxiety
300.1 Hysteria
300.2 Phobic disorders
300.3 Obsessive-compulsive disorders
300.4 Neurotic depression
300.5 Neurasthenia
300.6 Depersonalization syndrome
300.7 Hypochondriasis
300.8 Other neurotic disorders

301 Personality disorders

301.0 Paranoid personality disorder
301.1 Affective personality disorder
301.2 Schizoid personality disorder
301.3 Explosive personality disorder
301.4 Compulsive personality disorder
301.5 Histrionic personality disorder
301.6 Dependent personality disorder
301.7 Antisocial personality disorder
301.8 Other personality disorders

Narcissistic personality

Avoidant personality

Borderline personality

Passive-aggressive personality

301.89 Other. Personality: eccentric, "haltlose" type, immature, masochistic, psychoneurotic

Sexual deviations and disorders

166 Alcohol dependence syndrome

167 Drug dependence

168 Nondependent abuse of drugs

169 Physiological malfunction arising from mental factors

308 Acute reaction to stress

MENTAL RETARDATION (317-319)

5. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS

INFLAMMATORY DISEASES OF THE CENTRAL NERVOUS SYSTEM (320-326)

- 320 Bacterial meningitis**
- 321 Meningitis due to other organisms**
 - 321.0 Cryptococcal meningitis**
 - 321.1 Meningitis in other fungal diseases**
 - 321.2 Meningitis due to viruses not elsewhere classified**
- 322 Meningitis of unspecified cause**
- 323 Encephalitis, myelitis, and encephalomyelitis**
- 324 Intracranial and intraspinal abscess**
- 325 Phlebitis and thrombophlebitis of intracranial venous sinuses**
- 326 Late effects of intracranial abscess or pyogenic infection**

HEREDITARY AND DEGENERATIVE DISEASES OF THE CENTRAL NERVOUS SYSTEM (330-337)

- 330 Cerebral degenerations usually manifest in childhood**
- 331 Other cerebral degenerations**
 - 331.0 Alzheimer's disease**
 - 331.1 Pick's disease**
 - 331.7 Cerebral degeneration in diseases classified elsewhere**
 - 331.8 Other cerebral degeneration**
 - 331.81 Reye's syndrome**
- 332 Parkinson's disease**
 - 332.0 Paralysis agitans. Parkinsonism or Parkinson's disease: NOS, idiopathic, primary**
 - 332.1 Secondary Parkinsonism. Parkinsonism due to drugs Use additional E code to identify drug, if drug-induced**
- 333 Other extrapyramidal disease and abnormal movement disorders**
- 334 Spinocerebellar disease**
 - 334.0 Friedreich's ataxia**
 - 334.1 Hereditary spastic paraplegia**
 - 334.2 Primary cerebellar degeneration**
- 335 Anterior horn cell disease**
 - 335.0 Werdnig-Hoffmann disease**
 - 335.1 Spinal muscular atrophy**
 - 335.2 Motor neuron disease**
 - 335.20 Amyotrophic lateral sclerosis. Motor neuron disease (bulbar) (mixed type)**
- 336 Other diseases of spinal cord**
 - 336.0 Syringomyelia and syringobulbia**
 - 336.1 Vascular myelopathies**
- 337 Disorders of the autonomic nervous system**
 - 337.2 Reflex sympathetic dystrophy**
 - 337.22 Reflex sympathetic dystrophy of the lower limb**

OTHER DISORDERS OF THE CENTRAL NERVOUS SYSTEM (340-349)

340 Multiple sclerosis. Disseminated or multiple sclerosis: NOS, brain stem, cord, generalized

341 Other demyelinating diseases of central nervous system

342 Hemiplegia and hemiparesis

342.0 Flaccid hemiplegia

342.1 Spastic hemiplegia

343 Infantile cerebral palsy

343.0 Diplegic

343.1 Hemiplegic

343.2 Quadriplegic

343.3 Monoplegic

344 Other paralytic syndromes. Note: This category is to be used when the listed conditions are reported without further specification or are stated to be old or long-standing but of unspecified cause. The category is also for use in multiple coding to identify these conditions resulting from any cause.

344.0 Quadriplegia and quadriplegia

344.1 Paraplegia. Paralysis of both lower limbs, Paraplegia (lower)

344.3 Monoplegia of lower limb. Paralysis of lower limb

344.30 Monoplegia of lower limb. Paralysis of lower limb. Affecting unspecified side

344.31 Monoplegia of lower limb. Paralysis of lower limb. Affecting dominant side

344.32 Monoplegia of lower limb. Paralysis of lower limb. Affecting nondominant side

344.6 Cauda equina syndrome

344.9 Paralysis, unspecified

345 Epilepsy

345.0 Generalized nonconvulsive epilepsy

345.1 Generalized convulsive epilepsy

345.2 Petit mal status

346 Migraine

347 Cataplexy and narcolepsy

348 Other conditions of brain

349 Other and unspecified disorders of the nervous system

DISORDERS OF THE PERIPHERAL NERVOUS SYSTEM (350-359)

350 Trigeminal nerve disorders

351 Facial nerve disorders

352 Disorders of other cranial nerves

353 Nerve root and plexus disorders

353.6 Phantom limb (syndrome)

354 Mononeuritis of upper limb and mononeuritis multiplex

355 Mononeuritis of lower limb

355.0 Lesion of sciatic nerve

355.1 Meralgia paresthetica. Lateral cutaneous femoral nerve of thigh compression or syndrome

355.3 Lesion of lateral popliteal nerve. Lesion of common peroneal nerve

- 355.4 Lesion of medial popliteal nerve
- 355.5 Tarsal tunnel syndrome
- 355.6 Lesion of plantar nerve. Morton's metatarsalgia, neuralgia, or neuroma
- 355.7 Other mononeuritis of lower limb
 - 355.71 Causalgia, lower limb
 - 355.79 Other mononeuritis of lower limb
- 355.8 Mononeuritis of lower limb, unspecified
- 356 Hereditary and idiopathic peripheral neuropathy
 - 356.0 Hereditary peripheral neuropathy. Déjérine-Sottas disease
 - 356.1 Peroneal muscular atrophy. Charcot-Marie-Tooth disease, Neuropathic muscular atrophy
 - 356.2 Hereditary sensory neuropathy
 - 356.3 Refsum's disease. Heredopathia atactica polyneuritiformis
 - 356.9 Hereditary and idiopathic peripheral neuropathy. Unspecified
- 357 Inflammatory and toxic neuropathy
 - 357.0 Acute infective polyneuritis. Guillain-Barre syndrome, Postinfectious polyneuritis
 - 357.1 Polyneuropathy in collagen vascular disease. Code first underlying disease, as: disseminated lupus erythematosus (710.0), polyarteritis nodosa (446.0), rheumatoid arthritis (714.0)
 - 357.2 Polyneuropathy in diabetes. Code first underlying disease (250.6)
 - 357.3 Polyneuropathy in malignant disease. Code first underlying disease (140.0-208.9)
 - 357.4 Polyneuropathy in other diseases classified elsewhere. Code first underlying disease, as: amyloidosis (277.3), beriberi (265.0), deficiency of B vitamins (266.0-266.9), diphtheria (032.0-032.9), hypoglycemia (251.2), pellagra (265.2), porphyria (277.1), sarcoidosis (135), uremia (585)
 - 357.5 Alcoholic polyneuropathy
 - 357.6 Polyneuropathy due to drugs. Use additional E code to identify drug
 - 357.7 Polyneuropathy due to other toxic agents. Use additional E code to identify toxic agent
 - 357.8 Other. Chronic inflammatory demyelinating polyneuritis
- 358 Myoneural disorders
 - 358.0 Myasthenia gravis
- 359 Muscular dystrophies and other myopathies
 - 359.1 Hereditary progressive muscular dystrophy. Muscular dystrophy: NOS, distal, Duchenne, Erb's, fascioscapulohumeral, Gower's, Landouzy-Déjérine, limb-girdle, ocular, oculopharyngeal
 - 359.6 Symptomatic inflammatory myopathy in diseases classified elsewhere. Code first underlying disease, as: amyloidosis, (277.3), disseminated lupus erythematosus (710.0), malignant neoplasm (140.0-208.9), polyarteritis nodosa (446.0), rheumatoid arthritis (714.0), sarcoidosis (135), scleroderma (710.1), Sjögren's disease (710.2)

DISORDERS OF THE EYE AND ADNEXA (360-379)

- 360 Disorders of the globe**
- 361 Retinal detachments and defects**
- 362 Other retinal disorders**
- 363 Chorioretinal inflammations, scars, and other disorders of choroid**
- 364 Disorders of iris and ciliary body**
- 365 Glaucoma**
- 366 Cataract**
- 367 Disorders of refraction and accommodation**
- 368 Visual disturbances**
- 369 Blindness and low vision**
- 370 Keratitis**
- 371 Corneal opacity and other disorders of cornea**
- 372 Disorders of conjunctiva**
- 373 Inflammation of eyelids**
- 374 Other disorders of eyelids**
- 375 Disorders of lacrimal system**
- 376 Disorders of the orbit**
- 377 Disorders of optic nerve and visual pathways**
- 378 Strabismus and other disorders of binocular eye movements**
- 379 Other disorders of eye**

DISEASES OF THE EAR AND MASTOID PROCESS (380-389)

- 170 380 Disorders of external ear**
- 381 Nonsuppurative otitis media and Eustachian tube disorders**
- 382 Suppurative and unspecified otitis media**
- 383 Mastoiditis and related conditions**
- 384 Other disorders of tympanic membrane**
- 385 Other disorders of middle ear and mastoid**
- 386 Vertiginous syndromes and other disorders of vestibular system**
- 387 Otosclerosis**
- 388 Other disorders of ear**
- 389 Hearing loss**

6. Cardiovascular Disease (390-459)

ACUTE RHEUMATIC FEVER (390-392)

- 390 Rheumatic fever without mention of heart involvement. Arthritis, rheumatic, acute or subacute. Rheumatic fever active) (acute), Rheumatism, articular, acute or subacute
- 391 Rheumatic fever with heart involvement
- 392 Rheumatic chorea. Sydenham's chorea

CHRONIC RHEUMATIC HEART DISEASE (393-398)

- 393 Chronic rheumatic pericarditis
- 394 Diseases of mitral valve
- 395 Diseases of aortic valve
- 396 Diseases of mitral and aortic valves
- 397 Diseases of other endocardial structures
- 398 Other rheumatic heart disease

HYPERTENSIVE DISEASE (401-405)

- 401 Essential hypertension
- 402 Hypertensive heart disease
- 403 Hypertensive renal disease
- 404 Hypertensive heart and renal disease
- 405 Secondary hypertension

ISCHEMIC HEART DISEASE (410-414)

- 410 Acute myocardial infarction
- 411 Other acute and subacute forms of ischemic heart disease
- 412 Old myocardial infarction
- 413 Angina pectoris
 - 413.1 Prinzmetal angina
- 414 Other forms of chronic ischemic heart disease
 - 414.0 Coronary atherosclerosis
 - 414.1 Aneurysm of heart

DISEASES OF PULMONARY CIRCULATION (415-417)

- 415 Acute pulmonary heart disease
- 416 Chronic pulmonary heart disease
- 417 Other diseases of pulmonary circulation

OTHER FORMS OF HEART DISEASE (420-429)

- 420 Acute pericarditis
- 421 Acute and subacute endocarditis
- 422 Acute myocarditis
 - 422.93 Toxic myocarditis
- 423 Other diseases of pericardium

- 423.1 Adhesive pericarditis. Adherent pericardium. Fibrosis of pericardium. Milk spots. Pericarditis: adhesive. Obliterative, Soldiers' patches
- 423.2 Constrictive pericarditis. Concato's disease. Pick's disease of heart (and liver)
- 424 Other diseases of endocardium
 - 424.0 Mitral valve disorders
 - 424.1 Aortic valve disorders
 - 424.2 Tricuspid valve disorders, specified as nonrheumatic
 - 424.3 Pulmonary valve disorders
 - 424.9 Endocarditis, valve unspecified
- 425 Cardiomyopathy
 - 425.1 Hypertrophic obstructive cardiomyopathy
 - 425.5 Alcoholic cardiomyopathy
 - 425.7 Nutritional and metabolic cardiomyopathy
- 426 Conduction disorders
 - 426.0 Atrioventricular block, complete. Third degree atrioventricular block
 - 426.2 Left bundle branch hemiblock
 - 426.4 Right bundle branch block
 - 426.5 Bundle branch block, other and unspecified
 - 426.54 Trifascicular block
- 427 Cardiac dysrhythmias
 - 427.0 Paroxysmal supraventricular tachycardia
 - 427.1 Paroxysmal ventricular tachycardia
 - 427.3 Atrial fibrillation and flutter
 - 427.4 Ventricular fibrillation and flutter
 - 427.5 Cardiac arrest
 - 427.6 Premature beats
 - 427.8 Other specified cardiac dysrhythmias
 - 427.81 Sinoatrial node dysfunction
- 428 Heart failure
 - 428.0 Congestive heart failure. Congestive heart disease, Right heart failure (secondary to left heart failure)
 - 428.1 Left heart failure
- 429 Ill-defined descriptions and complications of heart disease
 - 429.2 Cardiovascular disease, unspecified. Arteriosclerotic cardiovascular disease [ASCVD]; Cardiovascular arteriosclerosis; Cardiovascular:degeneration (with mention of arteriosclerosis) disease (with mention of arteriosclerosis); etc.
 - 429.3 Cardiomegaly

CEREBROVASCULAR DISEASE (430-438)

- 430 Subarachnoid hemorrhage
- 431 Intracerebral hemorrhage
- 432 Other and unspecified intracranial hemorrhage
 - 432.0 Nontraumatic extradural hemorrhage
 - 432.1 Subdural hemorrhage
- 433 Occlusion and stenosis of precerebral arteries
 - 433.0 Basilar artery
 - 433.1 Carotid artery
 - 433.2 Vertebral artery
- 434 Occlusion of cerebral arteries
 - 434.0 Cerebral thrombosis
 - 434.1 Cerebral embolism
- 435 Transient cerebral ischemia
- 435 Acute, but ill-defined, cerebrovascular disease
- 437 Other and ill-defined cerebrovascular disease
- 438 Late effects of cerebrovascular disease

DISEASES OF ARTERIES, ARTERIOLES, AND CAPILLARIES (440-448)

- 440 Atherosclerosis
 - 440.2 Of native arteries of the extremities
 - 440.20 Atherosclerosis of the extremities, unspecified
 - 440.21 Atherosclerosis of the extremities with intermittent claudication
 - 440.22 Atherosclerosis of the extremities with rest pain
 - 440.23 Atherosclerosis of the extremities with ulceration
 - 440.24 Atherosclerosis of the extremities with gangrene
 - 440.3 Atherosclerosis; of bypass graft of the extremities
 - 440.30 Atherosclerosis, of unspecified graft
 - 440.31 Atherosclerosis, of autologous vein bypass graft
 - 440.32 Atherosclerosis, of nonautologous vein bypass graft
 - 440.9 Generalized and unspecified atherosclerosis Arteriosclerotic vascular disease
- NOS
- 441 Aortic aneurysm and dissection
- 442 Other aneurysm
- 443 Other peripheral vascular disease
 - 443.0 Raynaud's syndrome. Raynaud's: disease; phenomenon (secondary). Use additional code to identify gangrene (785.4)
 - 443.1 Thromboangiitis obliterans [Buerger's disease]. Presenile gangrene
 - 443.8 Other specified peripheral vascular diseases
 - 443.89 Other. Acrocyanosis; Acroparesthesia: simple [Schultze's type], vasomotor [Nothnagel's type]; Erythrocyanosis; Erythromelalgia
 - 443.9 Peripheral vascular disease, unspecified. Intermittent claudication NOS. Peripheral: angiopathy NOS, vascular disease NOS, Spasm of artery
- 444 Arterial embolism and thrombosis
 - 444.2 Arterial embolism and thrombosis, of arteries of the extremities
 - 444.22 Arterial embolism and thrombosis. Lower extremity. Arterial embolism or

- thrombosis: femoral, peripheral NOS, popliteal
- 446 Polyarteritis nodosa and allied conditions
 - 446.2 Hypersensitivity angiitis
- 447 Other disorders of arteries and arterioles
 - 447.1 Stricture of artery
 - 447.6 Arteritis, unspecified; Aortitis NOS; Endarteritis NOS
- 448 Disease of capillaries
 - 448.9 Other and unspecified capillary diseases. Capillary: hemorrhage, hyperpermeability, and thrombosis

DISEASES OF VEINS AND LYMPHATICS, AND OTHER DISEASES OF CIRCULATORY SYSTEM (451-459)

- 451 Phlebitis and thrombophlebitis. Use additional E code to identify drug if drug-induced
 - 451.0 Phlebitis and thrombophlebitis. Of superficial vessels of lower extremities Saphenous vein (greater) (lesser)
 - 451.1 Phlebitis and thrombophlebitis. Of deep vessels of lower extremities
 - 451.11 Phlebitis and thrombophlebitis. Femoral vein (deep) (superficial)
 - 451.19 Phlebitis and thrombophlebitis. Other: Femoropopliteal vein, Popliteal vein, Tibial vein
 - 451.2 Phlebitis and thrombophlebitis. Of lower extremities, unspecified
 - 451.9 Phlebitis and thrombophlebitis. Of unspecified site
- 452 Portal vein thrombosis
- 453 Other venous embolism and thrombosis. That with inflammation, phlebitis, and thrombophlebitis (451.0-451.9)
 - 453.9 Other venous embolism and thrombosis. Of unspecified site, Embolism of vein, Thrombosis (vein)
- 454 Varicose veins of lower extremities
 - 454.0 Varicose veins of lower extremities. With ulcer. Varicose ulcer (lower extremity, any part); Varicose veins with ulcer of lower extremity [any part] or of unspecified site; Any condition classifiable to 454.9 with ulcer or specified as ulcerated
 - 454.1 Varicose veins of lower extremities. With inflammation. Stasis dermatitis; Varicose veins with inflammation of lower extremity [any part] or of unspecified site; Any condition classifiable to 454.9 with inflammation or specified as inflamed
 - 454.2 Varicose veins of lower extremities. With ulcer and inflammation. Varicose veins with ulcer and inflammation of lower extremity [any part] or of unspecified site; Any condition classifiable to 454.9 with ulcer and
 - 454.9 Varicose veins of lower extremities Without mention of ulcer or inflammation. Phlebectasia of lower extremity [any part] or of unspecified site; Varicose veins of lower extremity [any part] or of unspecified site; Varix of lower extremity [any part] or of unspecified site
- 455 Hemorrhoids
- 456 Varicose veins of other sites

457 Noninfectious disorders of lymphatic channels

**457.1 Other lymphedema. Elephantiasis (nonfilarial) NOS, Lymphangiectasis,
Lymphedema: acquired (chronic); praecox; secondary. Obliteration, lymphatic vessel**

458 Hypotension

459 Other disorders of circulatory system

459.1 Postphlebotic syndrome

459.2 Compression of vein. Stricture of vein, Vena cava syndrome (inferior) (superior)

**459.81 Venous (peripheral) insufficiency, unspecified. Chronic venous insufficiency
NOS. Use additional code for any associated ulceration (707.1-707.9)**

**459.89 Other specified disorders of circulatory system. Other Collateral circulation
(venous), any site, Phlebosclerosis Venofibrosis**

459.9 Unspecified circulatory system disorder

7. DISEASES OF THE RESPIRATORY SYSTEM (460-519)

ACUTE RESPIRATORY INFECTIONS (460-466)

- 460 Acute nasopharyngitis [common cold]
- 461 Acute sinusitis
- 462 Acute pharyngitis
- 463 Acute tonsillitis
- 464 Acute laryngitis and tracheitis
- 465 Acute upper respiratory infections of multiple or unspecified sites
- 466 Acute bronchitis and bronchiolitis

OTHER DISEASES OF THE UPPER RESPIRATORY TRACT (470-478)

- 470 Deviated nasal septum
 - 171 471 Nasal polyps
- 472 Chronic pharyngitis and nasopharyngitis
- 473 Chronic sinusitis
- 474 Chronic disease of tonsils and adenoids
- 475 Peritonsillar abscess
- 476 Chronic laryngitis and laryngotracheitis
- 477 Allergic rhinitis
- 478 Other diseases of upper respiratory tract

PNEUMONIA AND INFLUENZA (480-487)

- 172 480 Viral pneumonia
- 481 Pneumococcal pneumonia [Streptococcus pneumoniae pneumonia]
- 482 Other bacterial pneumonia
- 483 Pneumonia due to other specified organism
- 484 Pneumonia in infectious diseases classified elsewhere
- 485 Bronchopneumonia, organism unspecified
- 486 Pneumonia, organism unspecified
- 487 Influenza

CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ALLIED CONDITIONS (490-496)

- 490 Bronchitis, not specified as acute or chronic
- 491 Chronic bronchitis
- 492 Emphysema
- 493 Asthma
- 494 Bronchiectasis
- 495 Extrinsic allergic alveolitis
- 496 Chronic airway obstruction, not elsewhere classified

**PNEUMOCONIOSES AND OTHER LUNG DISEASES DUE TO EXTERNAL AGENTS
(500-508)**

- 173 500 Coal workers' pneumoconiosis**
- 501 Asbestosis**
- 502 Pneumoconiosis due to other silica or silicates**
- 503 Pneumoconiosis due to other inorganic dust**
- 504 Pneumonopathy due to inhalation of other dust**
- 505 Pneumoconiosis, unspecified**
- 506 Respiratory conditions due to chemical fumes and vapors**
- 507 Pneumonitis due to solids and liquids**
- 508 Respiratory conditions due to other and unspecified external agents**

OTHER DISEASES OF RESPIRATORY SYSTEM (510-519)

- 510 Empyema**
- 511 Pleurisy**
- 512 Pneumothorax**
- 513 Abscess of lung and mediastinum**
- 514 Pulmonary congestion and hypostasis**
- 515 Postinflammatory pulmonary fibrosis**
- 516 Other alveolar and parietoalveolar pneumonopathy**
- 517 Lung involvement in conditions classified elsewhere**
- 518 Other diseases of lung**
- 519 Other diseases of respiratory system**

8. DISEASES OF THE DIGESTIVE SYSTEM (520-579)

DISEASES OF ORAL CAVITY, SALIVARY GLANDS, AND JAWS (520-529)

- 520 Disorders of tooth development and eruption
- 521 Diseases of hard tissues of teeth
- 522 Diseases of pulp and periapical tissues
- 523 Gingival and periodontal diseases
- 524 Dentofacial anomalies, including malocclusion
- 525 Other diseases and conditions of the teeth and supporting structures
- 526 Diseases of the jaws
- 527 Diseases of the salivary glands
- 528 Diseases of the oral soft tissues, excluding lesions specific for gingiva and tongue
- 529 Diseases and other conditions of the tongue

DISEASES OF ESOPHAGUS, STOMACH, AND DUODENUM (530-537)

- 530 Diseases of esophagus
- 531 Gastric ulcer
- 532 Duodenal ulcer
- 533 Peptic ulcer, site unspecified
- 534 Gastrojejunal ulcer
- 535 Gastritis and duodenitis
- 536 Disorders of function of stomach
- 537 Other disorders of stomach and duodenum

APPENDICITIS (540-543)

- 540 Acute appendicitis
- 541 Appendicitis, unqualified
- 542 Other appendicitis
- 543 Other diseases of appendix

HERNIA OF ABDOMINAL CAVITY (550-553)

- 550 Inguinal hernia
- 551 Other hernia of abdominal cavity, with gangrene
- 552 Other hernia of abdominal cavity, with obstruction, but without mention of gangrene
- 553 Other hernia of abdominal cavity without mention of obstruction or gangrene

NONINFECTIOUS ENTERITIS AND COLITIS (555-558)

- 555 Regional enteritis
- 556 Ulcerative colitis
- 557 Vascular insufficiency of intestine
- 558 Other noninfectious gastroenteritis and colitis

OTHER DISEASES OF INTESTINES AND PERITONEUM (560-569)

- 560 Intestinal obstruction without mention of hernia**
- 562 Diverticula of intestine**
- 564 Functional digestive disorders, not elsewhere classified**
- 565 Anal fissure and fistula**
- 566 Abscess of anal and rectal regions**
- 567 Peritonitis**
- 568 Other disorders of peritoneum**
- 569 Other disorders of intestine**

OTHER DISEASES OF DIGESTIVE SYSTEM (570-579)

- 570 Acute and subacute necrosis of liver**
- 571 Chronic liver disease and cirrhosis**
- 572 Liver abscess and sequelae of chronic liver disease**
- 573 Other disorders of liver**
- 574 Cholelithiasis**
- 575 Other disorders of gallbladder**
- 576 Other disorders of biliary tract**
- 577 Diseases of pancreas**
- 578 Gastrointestinal hemorrhage**
- 579 Intestinal malabsorption**

9. DISEASES OF THE GENITOURINARY SYSTEM (580-629)

NEPHRITIS, NEPHROTIC SYNDROME, AND NEPHROSIS (580-589)

- 580 Acute glomerulonephritis
- 581 Nephrotic syndrome
- 582 Chronic glomerulonephritis
- 583 Nephritis and nephropathy, not specified as acute or chronic
- 584 Acute renal failure
- 585 Chronic renal failure. Chronic uremia. Use additional code to identify manifestation as: uremic: neuropathy (357.4)
- 586 Renal failure, unspecified. Uremia NOS
- 587 Renal sclerosis, unspecified
- 588 Disorders resulting from impaired renal function
- 589 Small kidney of unknown cause

OTHER DISEASES OF URINARY SYSTEM (590-599)

- 590 Infections of kidney
- 591 Hydronephrosis
- 592 Calculus of kidney and ureter
- 593 Other disorders of kidney and ureter
- 594 Calculus of lower urinary tract
- 595 Cystitis
- 596 Other disorders of bladder
- 597 Urethritis, not sexually transmitted, and urethral syndrome
- 598 Urethral stricture
- 599 Other disorders of urethra and urinary tract

DISEASES OF MALE GENITAL ORGANS (600-608)

- 600 Hyperplasia of prostate
- 601 Inflammatory diseases of prostate
- 602 Other disorders of prostate
- 603 Hydrocele
- 604 Orchitis and epididymitis
- 605 Redundant prepuce and phimosis
- 606 Infertility, male
- 607 Disorders of penis
- 608 Other disorders of male genital organs

DISORDERS OF BREAST (610-611)

- 610 Benign mammary dysplasias
- 611 Other disorders of breast

INFLAMMATORY DISEASE OF FEMALE PELVIC ORGANS (614-616)

- 614 Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue, and peritoneum
- 615 Inflammatory diseases of uterus, except cervix
- 616 Inflammatory disease of cervix, vagina, and vulva

OTHER DISORDERS OF FEMALE GENITAL TRACT (617-629)

617Endometriosis

618Genital prolapse

619Fistula involving female genital tract

620Noninflammatory disorders of ovary, fallopian tube, and broad ligament

621Disorders of uterus, not elsewhere classified

622Noninflammatory disorders of cervix

623Noninflammatory disorders of vagina

624Noninflammatory disorders of vulva and perineum

625Pain and other symptoms associated with female genital organs

626Disorders of menstruation and other abnormal bleeding from female genital tract

627Menopausal and postmenopausal disorders

628Infertility, female

629Other disorders of female genital organs

11. INFECTIONS OF SKIN AND SUBCUTANEOUS TISSUE (680-686)

680 Carbuncle and furuncle

680.6 Carbuncle and furuncle. Leg, except foot. Ankle, Hip, Knee, Thigh

680.7 Carbuncle and furuncle. Foot, Heel, Toe

681 Cellulitis and abscess of finger and toe. Includes: that with lymphangitis. Use additional code to identify organism, such as Staphylococcus (041.1)

681.1 Cellulitis and abscess of finger and toe. Toe

681.10 Cellulitis and abscess, unspecified

681.11 Onychia and paronychia of toe. Panaritium of toe, Perionychia of toe

681.9 Cellulitis and abscess of unspecified digit Infection of nail NOS

682 Other cellulitis and abscess. Use additional code to identify organism, such as Staphylococcus (041.1)

682.6 Other cellulitis and abscess. Leg, except foot. Ankle, Hip, Knee, Thigh

682.7 Other cellulitis and abscess. Foot, except toes. Heel

683 Acute lymphadenitis. Abscess (acute) lymph gland or node

684 Impetigo. Impetiginization of other dermatoses. Impetigo (contagiosa) [any site] [any organism]: bullous; circinate; neonatorum; simplex; Pemphigus neonatorum

685 Pilonidal cyst

686 Other local infections of skin and subcutaneous tissue. Use additional code to identify any infectious organism (041.0-041.8)

686.0 Pyoderma. Dermatitis: purulent, septic, suppurative

686.1 Pyogenic granuloma. Granuloma: septic, suppurative, telangiectaticum

686.8 Other specified local infections of skin and subcutaneous tissue. Bacterid (pustular), Dermatitis vegetans, Ecthyma, Perlèche

686.9 Unspecified local infection of skin and subcutaneous tissue. Fistula of skin NOS. Skin infection NOS

OTHER INFLAMMATORY CONDITIONS OF SKIN AND SUBCUTANEOUS TISSUE (690-698)

690 Erythematous squamous dermatosis

691 Atopic dermatitis and related conditions

692 Contact dermatitis and other eczema

692.0 Due to detergents

692.1 Due to oils and greases

692.2 Due to solvents

692.3 Due to drugs and medicines in contact with skin

692.4 Due to other chemical products

692.5 Due to food in contact with skin

692.6 Due to plants [except food]

692.7 Due to solar radiation

692.71 Sunburn

692.9 Contact dermatitis (unspecified cause). Dermatitis: NOS; contact NOS; venenata NOS; Eczema NOS

693 Dermatitis due to substances taken internally

694 Bullous dermatoses

- 694.0 Dermatitis herpetiformis
- 694.3 Impetigo herpetiformis
- 694.4 Pemphigus
- 694.5 Pemphigoid
- 695 Erythematous conditions
 - 695.0 Toxic erythema
 - 695.1 Erythema multiforme
 - 695.2 Erythema nodosum
 - 695.3 Rosacea
 - 695.4 Lupus erythematosus. Lupus: erythematoses (discoïd), erythematosus (discoïd), not disseminated
 - 695.8 Other specified erythematous conditions
 - 695.89 Erythematous conditions. Other. Erythema intertrigo, Intertrigo, Pityriasis rubra (Hebra)
 - 695.9 Unspecified erythematous condition. Erythema NOS. Erythroderma (secondary)
- 696 Psoriasis and similar disorders
 - 696.0 Psoriatic arthropathy
 - 696.1 Other psoriasis. Acrodermatitis continua, Dermatitis repens, Psoriasis: NOS any type, except arthropathic
 - 696.2 Parapsoriasis
 - 696.3 Pityriasis rosea
 - 696.4 Pityriasis rubra pilaris
- 697 Lichen
 - 697.0 Lichen planus
- 698 Pruritus and related conditions
 - 698.3 Lichenification and lichen simplex chronicus. Hyde's disease, Neurodermatitis (circumscripta) (local) Prurigo nodularis
 - 698.4 Dermatitis factitia [artefacta]. Dermatitis ficta, Neurotic excoriation. Use additional code to identify any associated mental disorder
 - 698.8 Other specified pruritic conditions. Pruritus: hiemalis, senilis, Winter itch
 - 698.9 Unspecified pruritic disorder. Itch NOS Pruritus NOS

OTHER DISEASES OF SKIN AND SUBCUTANEOUS TISSUE (700-709)

- 700 Corns and callosities. Callus, Clavus
- 701 Other hypertrophic and atrophic conditions of skin
 - 701.0 Circumscribed scleroderma
 - 701.1 Keratoderma, acquired. Acquired: ichthyosis; keratoderma palmaris et plantaris; Elastosis perforans serpiginosa; Hyperkeratosis: NOS; follicularis in cutem penetrans; palmoplantaris climacterica. Keratoderma:climactericum
 - 701.2 Acquired acanthosis nigricans. Keratosis nigricans
 - 701.3 Striae atrophicae. Atrophic spots of skin; Atrophoderma maculatum; Atrophy blanche (of Milian); Degenerative colloid atrophy; Senile degenerative atrophy; Striae distensae
 - 701.4 Keloid scar, Cheloid, Hypertrophic scar, Keloid
 - 701.5 Other abnormal granulation tissue. Excessive granulation

- 701.9 Unspecified hypertrophic and atrophic conditions of skin. Atrophoderma
- 702 Other dermatoses
 - 702.0 Actinic keratosis
 - 702.1 Seborrheic keratosis
 - 702.11 Inflamed seborrheic keratosis
- 703 Diseases of nail
 - 703.0 Ingrowing nail. Ingrowing nail with infection, Unguis incarnatus
 - 703.8 Other specified diseases of nail. Dystrophia unguium; Hypertrophy of nail; Koilonychia; Leukonychia (punctata) (striata); Onychauxis Onychogryposis; Onycholysis
- 704 Diseases of hair and hair follicles
- 705 Disorders of sweat glands
 - 705.0 Anhidrosis; Hypohidrosis; Oligohidrosis
 - 705.8 Other specified disorders of sweat glands
 - 705.81 Dyshidrosis; Cheiropompholyx; Pompholyx
 - 705.89 Other specified disorders of sweat glands. Other: Bromhidrosis; Chromhidrosis; Granulosis rubra nasi; Urhidrosis
- 706 Diseases of sebaceous glands
 - 706.2 Sebaceous cyst; Atheroma, skin; Keratin cyst; Wen
 - 706.8 Other specified diseases of sebaceous glands. Asteatosis (cutis), Xerosis cutis
- 707 Chronic ulcer of skin
 - 707.0 Decubitus ulcer, any site. Bed sore; Decubitus ulcer [any site]; Plaster ulcer; Pressure ulcer
 - 707.1 Ulcer of lower limbs, except decubitus Ulcer, chronic, of lower limb: neurogenic of lower limb; trophic of lower limb
- 708 Urticaria
- 709 Other disorders of skin and subcutaneous tissue
 - 709.0 Dyschromia
 - 709.01 Vitiligo
 - 709.1 Vascular disorders of skin
 - 709.2 Scar conditions and fibrosis of skin. Adherent scar (skin); Cicatrix. Disfigurement (due to scar); Fibrosis, skin NOS; Scar NOS
 - 709.3 Degenerative skin disorders. Calcinosis: circumscripta; cutis, Colloid milium; Degeneration, skin Deposits, skin, Senile dermatosis NOS, Subcutaneous calcification
 - 709.4 Foreign body granuloma of skin and subcutaneous tissue
 - 709.8 Other specified disorders of skin. Epithelial hyperplasia; Menstrual dermatosis; Vesicular eruption; Heel fissures

12. MUSCULOSKELETAL SYSTEM (710-739)

ARTHROPATHIES AND RELATED DISORDERS (710-719)

710 Diffuse diseases of connective tissue

- 710.0 Systemic lupus erythematosus. Disseminated lupus erythematosus, Libman-Sacks disease Use additional code to identify manifestation, as: endocarditis (424.91); nephritis (583.81); chronic (582.81) nephrotic syndrome (581.81)**
- 710.1 Systemic sclerosis. Acrosclerosis, CRST syndrome, Progressive systemic sclerosis, Scleroderma**
- 710.2 Sicca syndrome. Keratoconjunctivitis sicca, Sjögren's disease**
- 710.3 Dermatomyositis. Poikilodermatomyositis, Polymyositis with skin involvement**
- 710.4 Polymyositis**
- 710.5 Eosinophilia myalgia syndrome. Toxic oil syndrome. Use additional E code to identify drug, if drug induced**
- 710.9 Unspecified diffuse connective tissue disease. Collagen disease NOS**

711 Arthropathy associated with infections. The following fifth-digit

subclassification is for use with category 711: 6; lower leg; 7 ankle and foot

- 711.0 Pyogenic arthritis. Arthritis or polyarthritis (due to): coliform [*Escherichia coli*]; *Hemophilus influenzae* [*H. influenzae*]; pneumococcal; *Pseudomonas*; staphylococcal; streptococcal; Pyarthrosis. Use additional code to identify infectious organism (041.0-041.8)**
- 711.07 Arthritis, ankle or foot, pyogenic or pyemic. Abscess joint (ankle,foot,toe)**
- 711.1 Arthropathy associated with Reiter's disease and nonspecific urethritis**
- 711.2 Arthropathy in Behçet's syndrome**

712 Crystal arthropathies

- 712.1 Chondrocalcinosis due to dicalcium phosphate crystals**
- 712.2 Chondrocalcinosis due to pyrophosphate crystals**

713 Arthropathy associated with other disorders classified elsewhere

- 713.0 Arthropathy associated with other endocrine and metabolic disorders**
- 713.1 Arthropathy associated with gastrointestinal conditions other than infections. Code first underlying disease, as: regional enteritis (555.0-555.9), ulcerative colitis (556)**
- 713.2 Arthropathy associated with hematological disorders. Code first underlying disease, as: hemoglobinopathy (282.4-282.7), hemophilia (286.0-286.2), leukemia (204.0-208.9), malignant reticulosis (202.3), multiple myelomatosis (203.0),**
- 713.3 Arthropathy associated with dermatological disorders. Code first underlying disease, as: erythema multiforme (695.1), erythema nodosum (695.2)**
- 713.4 Arthropathy associated with respiratory disorders**
- 713.5 Arthropathy associated with neurological disorders. Charcot's arthropathy associated with diseases classifiable elsewhere. Neuropathic arthritis associated with diseases classifiable elsewhere**
- 713.6 Arthropathy associated with hypersensitivity reaction. Code first underlying disease, as: Henoch (-Schönlein) purpura (287.0), serum sickness (999.5)**
- 713.7 Other general diseases with articular involvement. Code first underlying disease, as: amyloidosis (277.3), familial Mediterranean fever (277.3), sarcoidosis (135)**

714 Rheumatoid arthritis and other inflammatory polyarthropathies

- 714.0 Rheumatoid arthritis. Arthritis or polyarthritis: atrophic; rheumatic (chronic). Use additional code to identify manifestation, as: myopathy (359.6); polyneuropathy (357.1)
- 714.1 Felty's syndrome. Rheumatoid arthritis with splenomegaly and leukopenia
- 714.30 Polyarticular juvenile rheumatoid arthritis, chronic or unspecified Juvenile rheumatoid arthritis NOS, Still's disease
- 714.31 Polyarticular juvenile rheumatoid arthritis, acute
- 714.9 Unspecified inflammatory polyarthropathy. Inflammatory polyarthropathy or polyarthritis NOS
- 715 Osteoarthritis and allied disorders. Note: Localized, in the subcategories below, includes bilateral involvement of the same site. The following fifth-digit subclassification is for use with category 715: 6 lower leg; 7 ankle
- 715.09 Osteoarthritis, generalized. Degenerative joint disease, involving multiple joints
Primary generalized hypertrophic osteoarthritis
- 715.1 Osteoarthritis, localized, primary; Localized osteoarthropathy, idiopathic
- 715.17 Arthritis, ankle or foot, degenerative. Arthropathy, ankle or foot, traumatic (chronic) (old) (post)
- 715.27 Osteoarthritis, localized, secondary.
- 715.37 Osteoarthritis, localized, not specified whether primary or secondary
- 715.89 Osteoarthritis involving, or with mention of more than one site, but not specified as generalized
- 716 Other and unspecified arthropathies. The following fifth-digit subclassification is for use with category 716: 6 lower leg; 7 ankle and foot
- 716.1 Traumatic arthropathy
- 716.17 Traumatic arthropathy, ankle and foot
- 716.2 Allergic arthritis
- 716.27 Arthritis, ankle or foot, allergic
- 716.4 Transient arthropathy
- 716.47 Arthropathy, ankle or foot, transient
- 716.5 Unspecified polyarthropathy or polyarthritis
- 716.57 Arthropathy, ankle or foot, polyarthropathy
- 716.9 Arthropathy, unspecified. Arthritis, (acute) (chronic) (subacute). Arthropathy, (acute) (chronic) (subacute) Articular rheumatism, (chronic), Inflammation of joint, NOS
- 716.97 Arthritis, ankle or foot (see also Arthropathy)
- 718 Other derangement of joint. The following fifth-digit subclassification is for use with category 718: 6 lower leg; 7 Ankle and foot
- 718.0 Articular cartilage disorder. Meniscus: disorder; rupture, old; tear, old. Old rupture of ligament(s) of joint NOS
- 718.07 Cartilage, articular cartilage disorder, ankle/foot
- 718.1 Loose body in joint. Joint mice
- 718.17 Cartilage, loose body in joint
- 718.2 Pathological dislocation. Dislocation or displacement of joint, not recurrent and not current
- 718.27 Dislocation, pathological, ankle, foot
- 718.3 Recurrent dislocation of joint

- 718.36 Dislocation, recurrent, chronic, habitual or old, lower leg
- 718.37 Dislocation, recurrent, chronic, habitual or old, ankle, foot, talotibial
- 718.4 Contracture of joint
 - 718.47 Contracture, joint, ankle or foot
- 718.5 Ankylosis of joint. Ankylosis of joint (fibrous) (osseous)
 - 718.56 Ankylosis of joint (fibrous) (osseous), lower leg
 - 718.57 Ankylosis of joint (fibrous) (osseous), ankle and foot
- 718.8 Other joint derangement, not elsewhere classified. Flail joint (paralytic);
Instability of joint
 - 718.87 Other joint derangement, not elsewhere classified. Flail joint (paralytic);
Instability of joint, ankle and foot
- 718.9 Unspecified derangement of joint
 - 718.97 Unspecified derangement of joint, ankle/foot
- 719 Other and unspecified disorders of joint. The following fifth-digit
subclassification is for use with category 719: 6 lower leg; 7 ankle and foot
 - 719.0 Effusion of joint. Hydrarthrosis. Swelling of joint, with or without pain
 - 719.07 Effusion, Edema, joint, ankle, foot
 - 719.1 Hemarthrosis
 - 719.17 Hemarthrosis. ankle and foot
 - 719.2 Villonodular synovitis
 - 719.3 Palindromic rheumatism. Hench-Rosenberg syndrome. Intermittent
hydrarthrosis
 - 719.4 Pain in joint. Arthralgia
 - 719.47 Arthralgia, foot or ankle
 - 719.5 Stiffness of joint, not elsewhere classified
 - 719.57 Stiffness of joint, not elsewhere classified, of ankle and foot
 - 719.6 Other symptoms referable to joint. Joint crepitus. Snapping hip
 - 719.67 Crepitus joint, ankle or foot
 - 719.7 Difficulty in walking
 - 719.77 Difficulty in walking
 - 719.8 Other specified disorders of joint. Calcification of joint, Fistula of joint
 - 719.87 Calcification, Fistula, joint, ankle or foot
 - 719.9 Unspecified disorder of joint
 - 719.97 Disease, diseased, joint, ankle, foot
 - 719.99 Disease, diseased, joint, multiple sites

DORSOPATHIES (720-724)

- 720 Ankylosing spondylitis and other inflammatory spondylopathies
 - 720.0 Ankylosing spondylitis
- 724 Other and unspecified disorders or back
 - 724.4 Thoracic or lumbosacral neuritis or radiculitis, unspecified. Radicular syndrome
of lower limbs

RHEUMATISM, EXCLUDING THE BACK (725-729)

726 Peripheral enthesopathies and allied syndromes. Note: Enthesopathies are disorders of peripheral ligamentous or muscular attachments.

726.7 Enthesopathy of ankle and tarsus

726.70 Enthesopathy of ankle and tarsus, unspecified. Metatarsalgia NOS

726.71 Achilles bursitis or tendinitis

726.72 Tibialis tendinitis. Tibialis (anterior) (posterior) tendinitis

726.73 Calcaneal spur

726.79 Other. Peroneal tendinitis; Exostosis, ankle; Bursitis ankle; Bursitis, foot; Bursitis, toe; Bursitis, calcaneal

726.9 Unspecified enthesopathy

726.90 Enthesopathy of specified site. Capsulitis NOS, Periarthritis NOS, Tendinitis NOS

726.91 Exostosis of unspecified site. Bone spur NOS

727 Other disorders of synovium, tendon, and bursa

727.0 Synovitis and tenosynovitis

727.00 Synovitis and tenosynovitis, unspecified. Synovitis NOS, Tenosynovitis NOS

727.02 Giant cell tumor of tendon sheath

727.06 Tenosynovitis of foot and ankle

727.1 Bunion

727.3 Other bursitis. Bursitis NOS

727.4 Ganglion and cyst of synovium, tendon, and bursa

727.40 Synovial cyst, unspecified

727.41 Ganglion of joint

727.42 Ganglion of tendon sheath

727.43 Ganglion unspecified

727.49 Other. Cyst of bursa

727.5 Rupture of synovium

727.51 Synovial cyst of popliteal space. Baker's cyst (knee)

727.6 Rupture of tendon, nontraumatic

727.65 Quadriceps tendon

727.66 Patellar tendon

727.67 Rupture of tendon, Achilles tendon

727.68 Rupture of tendon, Other tendons of foot and ankle

727.8 Other disorders of synovium, tendon, and bursa

727.81 Contracture of tendon (sheath). Short Achilles tendon (acquired)

727.82 Calcium deposits in tendon and bursa. Calcification of tendon NOS, Calcific tendinitis NOS

727.89 Other. Abscess of bursa or tendon

727.9 Unspecified disorder of synovium, tendon, and bursa

728 Disorders of muscle, ligament, and fascia

728.0 Infective myositis. Myositis: purulent, suppurative

728.1 Muscular calcification and ossification

728.10 Calcification and ossification, unspecified. Massive calcification (paraplegic)

728.11 Progressive myositis ossificans

728.12 Traumatic myositis ossifications

- 728.13 Postoperative heterotopic calcification
- 728.2 Muscular wasting and disuse atrophy, not elsewhere classified. Amyotrophia NOS, Myofibrosis
- 728.3 Other specific muscle disorders. Arthrogryposis. Immobility syndrome (paraplegic)
 - 728.4 Laxity of ligament
 - 728.5 Hypermobility syndrome (Marfan's syndrome)
 - 728.7 Other fibromatoses
 - 728.71 Plantar fascial fibromatosis, Contracture of plantar fascia, Plantar fasciitis (traumatic)
 - 728.8 Other disorders of muscle, ligament, and fascia
 - 728.81 Interstitial myositis
 - 728.82 Foreign body granuloma of muscle. Talc granuloma of muscle
 - 728.83 Rupture of muscle, nontraumatic
 - 728.85 Spasm of muscle
 - 728.86 Necrotizing fasciitis. Use additional code to identify: infectious organism (041.00-041.89). gangrene (785.4), if applicable
 - 728.89 Other. Eosinophilic fasciitis. Use additional E code to identify drug, if drug induced
- 728.9 Unspecified disorder of muscle, ligament, and fascia
- 729 Other disorders of soft tissues
 - 729.0 Rheumatism, unspecified and fibrositis
 - 729.1 Myalgia and myositis, unspecified. Fibromyositis NOS
 - 729.2 Neuralgia, neuritis, and radiculitis, unspecified
 - 729.4 Fasciitis, unspecified
 - 729.5 Pain in limb. Heel pain
 - 729.6 Residual foreign body in soft tissue
 - 729.8 Other musculoskeletal symptoms referable to limbs
 - 729.81 Swelling of limb
 - 729.82 Cramp
 - 729.89 Other

OSTEOPATHIES, CHONDROPATHIES, AND ACQUIRED MUSCULOSKELETAL DEFORMITIES (730-739)

- 730 Osteomyelitis, periostitis, and other infections involving bone. Use additional code to identify organism, such as Staphylococcus (041.1). The following fifth-digit subclassification is for use with category 730: 6 lower leg; 7 ankle and foot
 - 730.0 Acute osteomyelitis. Abscess of any bone except accessory sinus, jaw, or mastoid. Acute or subacute osteomyelitis, with or without mention of periostitis
 - 730.07 Abscess bone (see also OM) of ankle or foot
 - 730.1 Chronic osteomyelitis. Brodie's abscess. Chronic or old osteomyelitis, with or without mention of periostitis; Necrosis (acute) of bone; Sequestrum; Sclerosing osteomyelitis of Garré
 - 730.17 Abscess, chronic or old; Brodie's abscess
 - 730.2 Unspecified osteomyelitis. Osteitis or osteomyelitis NOS, with or without mention of periostitis

730.27 Unspecified osteomyelitis. Osteitis or osteomyelitis NOS, with or without mention of periostitis; ankle and foot.

730.37 Periostitis without mention of osteomyelitis, ankle and foot. Abscess of periosteum, without mention of osteomyelitis

731 Osteitis deformans and osteopathies associated with other disorders classified elsewhere

731.0 Osteitis deformans without mention of bone tumor. Paget's disease of bone

732 Osteochondropathies

732.5 Juvenile osteochondrosis of foot; Calcaneal apophysitis; Epiphysitis, os calcis; Osteochondrosis (juvenile) of: proximal tibia (of Blount), tibial tubercle (of Osgood-Schlatter), astragalus (of Diaz); calcaneum (of Sever); foot NOS; metatarsal: second (of Freilberg); fifth (of Iselin). os tibiale externum (of Haglund); tarsal navicular (of Köhler)

732.6 Other juvenile osteochondrosis. Apophysitis specified as juvenile, of other site, or site NOS. Epiphysitis specified as juvenile, of other site, or site NOS. Osteochondritis specified as juvenile, of other site, or site NOS. Osteochondrosis specified as juvenile, of other site, or site NOS

732.7 Osteochondritis dissecans

732.9 Unspecified osteochondropathy. Apophysitis NOS not specified as adult or juvenile, of unspecified site. Epiphysitis NOS not specified as adult or juvenile, of unspecified site. Osteochondritis NOS not specified as adult or juvenile, of unspecified site. Osteochondrosis NOS not specified as adult or juvenile, of unspecified site

733 Other disorders of bone and cartilage

733.0 Osteoporosis

733.00 Osteoporosis, unspecified. Wedging of vertebra NOS

733.01 Senile osteoporosis. Postmenopausal osteoporosis

733.02 Idiopathic osteoporosis

733.03 Disuse osteoporosis

733.09 Other. Drug-induced osteoporosis. Use additional E code to identify drug

733.1 Pathologic fracture. Spontaneous fracture

733.10 Pathologic fracture, unspecified site

733.16 Pathologic fracture of tibia and fibula. Ankle NOS

733.19 Pathologic fracture of other specified site

733.2 Cyst of bone

733.20 Cyst of bone (localized), unspecified

733.21 Solitary bone cyst. Unicameral bone cyst

733.22 Aneurysmal bone cyst

733.29 Other. Fibrous dysplasia (monostotic)

733.4 Aseptic necrosis of bone

733.40 Aseptic necrosis of bone, site unspecified

733.44 Aseptic necrosis of bone, talus

733.7 Algoneurodystrophy. Disuse atrophy of bone, Sudeck's atrophy

733.8 Malunion and nonunion of fracture

733.81 Malunion of fracture

733.82 Nonunion of fracture. Pseudoarthrosis (bone)

- 733.9 Other and unspecified disorders of bone and cartilage
 - 733.90 Disorder of bone and cartilage, unspecified
 - 733.91 Arrest of bone development or growth. Epiphyseal arrest
 - 733.99 Other. Diaphysitis, Hypertrophy of bone, Relapsing polychondritis
- 734 Flat foot, Pes planus (acquired), Talipes planus (acquired)
- 735 Acquired deformities of toe
 - 735.0 Hallux valgus (acquired)
 - 735.1 Hallux varus (acquired)
 - 735.2 Hallux rigidus
 - 735.3 Hallux malleus
 - 735.4 Other hammertoe (acquired)
 - 735.5 Claw toe, acquired
 - 735.8 Other acquired deformities of toe
 - 735.9 Unspecified acquired deformity of toe
- 736 Other acquired deformities of limbs
 - 736.3 Acquired deformities of hip
 - 736.30 Unspecified deformity. Deformity of hip (acquired) NOS
 - 736.31 Coxa valga (acquired)
 - 736.32 Coxa vara (acquired)
 - 736.39 Other
 - 736.4 Genu valgum or varum (acquired)
 - 736.41 Genu valgum (acquired)
 - 736.42 Genu varum (acquired)
 - 736.5 Genu recurvatum (acquired)
 - 736.6 Other acquired deformities of knee. Deformity of knee (acquired) NOS
 - 736.7 Other acquired deformities of ankle and foot
 - 736.70 Unspecified deformity of ankle and foot, acquired
 - 736.71 Acquired equinovarus deformity. Clubfoot, acquired
 - 736.72 Equinus deformity of foot, acquired
 - 736.73 Cavus deformity of foot
 - 736.74 Claw, foot, acquired
 - 736.75 Cavovarus deformity of foot, acquired
 - 736.76 Other calcaneus deformity
 - 736.79 Other Acquired: pes not elsewhere classified. Talipes not elsewhere classified
 - 736.8 Acquired deformities of other parts of limbs
 - 736.81 Unequal leg length (acquired)
 - 736.89 Other Deformity (acquired): arm or leg, not elsewhere classified, shoulder
 - 736.9 Deformity, extremity (acquired), site unspecified

13. Congenital Anomalies (740-759)

754 Certain congenital musculoskeletal deformities

754.5 Varus deformities of feet

754.50 Talipes varus. Congenital varus deformity of foot, unspecified. Pes varus

754.51 Talipes equinovarus. Equinovarus (congenital)

754.52 Metatarsus primus varus

754.53 Metatarsus varus

754.59 Other. Talipes calcaneovarus

754.6 Valgus deformities of feet

754.60 Talipes valgus. Congenital valgus deformity of foot, unspecified

754.61 Congenital pes planus. Congenital rocker bottom flat foot. Flat foot, congenital

754.62 Talipes calcaneovalgus

754.69 Other Talipes: equinovalgus; planovalgus

754.7 Other deformities of feet

754.70 Talipes, unspecified. Congenital deformity of foot NOS

754.71 Talipes cavus Cavus foot (congenital)

754.79 Other Asymmetric talipes. Talipes: calcaneus, equinus

755 Other congenital anomalies of limbs

755.0 Polydactyly

755.02 Polydactyly of toes. Accessory toes

755.1 Syndactyly. Symphalangy. Webbing of digits

755.13 Syndactyly. Symphalangy. Webbing of digits of toes without fusion of bone

755.14 Syndactyly. Symphalangy. Webbing of digits of toes with fusion of bone

755.3 Reduction deformities of lower limb

755.30 Unspecified reduction deformity of lower limb. Ectromelia NOS of lower limb, Hemimelia NOS of lower limb Shortening of leg, congenital

755.31 Transverse deficiency of lower limb. Amelia of lower limb; Congenital absence of: foot, leg, including foot and toes, lower limb, complete, toes, all, complete. Transverse hemimelia of lower limb

755.32 Longitudinal deficiency of lower limb, NEC. Phocomelia NOS of lower limb

755.38 Longitudinal deficiency, tarsals or metatarsals, complete or partial (with or without incomplete phalangeal deficiency)

755.39 Longitudinal deficiency, phalanges, complete or partial. Absence of toe, congenital Aphyalangia of lower limb, terminal, complete or partial

755.4 Reduction deformities, unspecified limb. Absence, congenital (complete or partial) of limb NOS. Amelia of unspecified limb. Ectromelia of unspecified limb. Hemimelia of unspecified limb. Phocomelia of unspecified limb

755.6 Other anomalies of lower limb, including pelvic girdle

755.60 Unspecified anomaly of lower limb

755.64 Congenital deformity of knee (joint). Congenital: absence of patella.

Rudimentary patella, genu valgum [knock-knee]; genu varum [bowleg]

755.65 Macroductyilia of toes

755.66 Other anomalies of toes. Congenital: hallux valgus, hallux varus, hammer toe

755.67 Anomalies of foot, NEC. Astragaloscaphoid synostosis. Calcaneonavicular bar. Coalition of calcaneus. Talonavicular synostosis. Tarsal coalitions

755.69 Other. Congenital: angulation of tibia. deformity (of): ankle (joint), sacroiliac (joint). fusion of sacroiliac joint

755.9 Unspecified anomaly of unspecified limb. Congenital: anomaly NOS of unspecified limb deformity NOS of unspecified limb

756 Other congenital musculoskeletal anomalies

756.5 Osteodystrophies

756.54 Polyostotic fibrous dysplasia of bone

756.8 Other specified anomalies of muscle, tendon, fascia, and connective tissue

756.83 Ehlers-Danlos syndrome

756.89 Other: Amyotrophia congenita. Congenital shortening of tendon

756.9 Other and unspecified anomalies of musculoskeletal system. Congenital: anomaly NOS of musculoskeletal system, NEC deformity NOS of musculoskeletal system, NEC

757 Congenital anomalies of the integument

757.0 Hereditary edema of legs. Congenital lymphedema, Hereditary trophedema.

Milroy's disease

757.3 Congenital anomalies of the integument. Other specified anomalies of skin

757.32 Vascular hamartomas. Birthmarks. Port-wine stain. Strawberry nevus

757.39 Congenital anomalies of the integument. Other Accessory skin tags, congenital Congenital scar Epidermolysis bullosa Keratoderma (congenital)

757.5 Specified anomalies of nails. Anonychia. Congenital: clubnail, koilonychia, leukonychia, onychauxis, pachyonychia

759 Other and unspecified congenital anomalies

759.9 Congenital anomaly, unspecified

14. Perinatal Diseases

15.Symptoms, Signs, and Ill-Defined Conditions (780-799)

- 781 Symptoms involving nervous and musculoskeletal systems**
 - 781.2 Abnormality of gait: ataxic, paralytic, spastic, staggering**
- 790 Nonspecific findings on examination of blood**
 - 790.1 Elevated sedimentation rate**
 - 790.2 Excessive blood level of alcohol**
- 791 Nonspecific abnormal findings in other body substances**
 - 792.9 Nonspecific abnormal findings in synovial fluid**
- 793 Nonspecific abnormal findings on radiological and other examination of body structure**
 - 793.7 Nonspecific abnormal findings of musculoskeletal system (CT, MRI, ultrasound)**
- 794 Nonspecific abnormal results of function studies**
 - 794.9 Abnormal radioisotope bone scan**

16. INJURY AND POISONING

FRACTURES (800-829)

824 Fracture of ankle

- 824.0 Fracture of ankle; Medial malleolus, closed. Tibia involving: ankle, malleolus
- 824.1 Fracture of ankle; Medial malleolus, open
- 824.2 Fracture of ankle; Lateral malleolus, closed. Fibula involving: ankle, malleolus
- 824.3 Fracture of ankle; Lateral malleolus, open
- 824.4 Fracture of ankle; Bimalleolar, closed. Dupuytren's fracture, fibula, Pott's

fracture

- 824.5 Fracture of ankle; Bimalleolar fracture, open
- 824.6 Fracture of ankle; Trimalleolar, closed. Lateral and medial malleolus with anterior or posterior lip of tibia
- 824.7 Fracture of ankle; Trimalleolar, open
- 824.8 Fracture of ankle; Unspecified, closed. Ankle NOS
- 824.9 Fracture, unspecified, ankle, open

825 Fracture of one or more tarsal and metatarsal bones

- 825.0 Fracture of calcaneus, closed. Heel bone, Os calcis
- 825.1 Fracture of calcaneus, open
- 825.2 Fracture of other tarsal and metatarsal bones, closed
 - 825.20 Unspecified bone(s) of foot [except toes]. Instep
 - 825.21 Fracture, talus, Shepherd's, closed
 - 825.22 Navicular [scaphoid], foot
 - 825.23 Fracture, cuboid, closed
 - 825.24 Fracture, cuneiform, closed
 - 825.25 Fracture, metatarsus, metatarsal (bone(s)), one foot, closed
 - 825.29 Fracture, other tarsal with metatarsal bone(s) only
- 825.3 Fracture of other tarsal and metatarsal bones, open
 - 825.30 Fracture, unspecified bone(s) of foot [except toes]
 - 825.31 Fracture, Talus, Shepherd's, open
 - 825.32 Fracture, Navicular [scaphoid], foot
 - 825.33 Fracture, Cuboid fracture, open
 - 825.34 Fracture, Cuneiform, foot
 - 825.35 Fracture, Metatarsal bone(s)
 - 825.39 Fracture other tarsal and metatarsal, open

826 Fracture of one or more phalanges of foot

- 826.0 Fracture, phalanx, phalanges, of one foot, closed
- 826.1 Fracture, phalanx, phalanges, of one foot, open

827 Other, multiple, and ill-defined fractures of lower limb

- 827.0 Fracture, other, multiple and ill-defined, lower limb, closed
- 827.1 Fracture, other, multiple and ill-defined, lower limb, open

828 Multiple fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum

- 828.0 Multiple fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum, Closed
- 828.1 Multiple fractures involving both lower limbs, lower with upper limb, and lower

limb(s) with rib(s) and sternum, Open

829 Fracture of unspecified bones

829.0 Fracture, unspecified, bone, closed

829.1 Fracture, unspecified, bone, open

DISLOCATION (830-839)

837 Dislocation of ankle

837.0 Dislocation, ankle, closed

837.1 Dislocation, ankle, open

838 Dislocation of foot

838.00 Dislocation, foot (unspecified), closed

838.01 Dislocation, tarsal bone (joint unspecified), closed

838.02 Dislocation, midtarsal (joint), closed

838.03 Dislocation, tarsometatarsal (joint), closed

838.04 Dislocation, metatarsal (bone), joint unspecified, closed

838.05 Dislocation, metatarsophalangeal (joint), closed

838.06 Dislocation, interphalangeal joint, foot, closed

838.09 Dislocation, toes, other, closed

838.10 Dislocation, foot (unspecified), open

838.11 Dislocation, tarsal bone (joint unspecified), open

838.12 Dislocation, midtarsal (joint), open

838.13 Dislocation, tarsometatarsal (joint), open

838.14 Dislocation, metatarsal (bone), joint unspecified, open

838.15 Dislocation, metatarsophalangeal (joint), open

838.16 Dislocation, interphalangeal joint, open

838.19 Dislocation, toes, other, open

SPRAINS AND STRAINS OF JOINTS AND ADJACENT MUSCLES (840-848)

844 Sprains and strains of knee and leg

**844.9 Sprains and strains of knee and leg. Unspecified site of knee and leg. Knee NOS.
Leg NOS**

845 Sprains and strains of ankle and foot

845.0 Sprains and strains of ankle and foot. Ankle

845.01 Sprains and strains of ankle and foot. Deltoid (ligament), ankle. Internal collateral (ligament), ankle

845.02 Sprains and strains of ankle and foot. Calcaneofibular (ligament), sprain/strain

845.03 Sprains and strains of ankle and foot. Tibiofibular (ligament), distal

845.09 Sprains and strains of ankle and foot. Other. Achilles tendon

845.1 Sprains and strains of ankle and foot. Foot

845.10 Sprains and strains of ankle and foot. Unspecified site

845.11 Sprains and strains of ankle and foot. Tarsometatarsal (joint) (ligament)

845.12 Sprains and strains of ankle and foot. Metatarsophalangeal (joint)

845.13 Sprains and strains of ankle and foot. Interphalangeal (joint), toe

845.19 Sprains and strains of ankle and foot. Other

OPEN WOUND (870-897)

OPEN WOUND OF LOWER LIMB (890-897)

- 891 Open wound of knee, leg [except thigh], and ankle**
 - 891.0 Open wound of knee, leg [except thigh], and ankle. Without mention of complication**
 - 891.1 Open wound of knee, leg [except thigh], and ankle. Complicated**
 - 891.2 Open wound of knee, leg [except thigh], and ankle. With tendon involvement**
- 892 Open wound of foot except toe(s) alone.**
 - 892.0 Open wound of foot except toe(s) alone. Without mention of complication**
 - 892.1 Open wound of foot except toe(s) alone. Complicated**
 - 892.2 Open wound of foot except toe(s) alone. With tendon involvement**
- 893 Open wound of toe(s)**
 - 893.0 Open wound of toe(s). Without mention of complication**
 - 893.1 Open wound of toe(s). Complicated**
 - 893.2 Open wound of toe(s). With tendon involvement**
- 894 Multiple and unspecified open wound of lower limb**
 - 894.0 Multiple and unspecified open wound of lower limb. Without mention of complication**
 - 894.1 Multiple and unspecified open wound of lower limb. Complicated**
 - 894.2 Multiple and unspecified open wound of lower limb. With tendon involvement**
- 895 Traumatic amputation of toe(s) (complete) (partial)**
 - 895.0 Traumatic amputation of toe(s) (complete) (partial), Without mention of complication**
 - 895.1 Amputation, toe(s), complicated**
- 896 Traumatic amputation of foot (complete) (partial)**
 - 896.0 Unilateral, without mention of complication**
 - 896.1 Amputation, foot, unilateral, complicated**
 - 896.2 Amputation, foot, Bilateral, without mention of complication**
 - 896.3 Amputation, foot, Bilateral, complicated**

INJURY TO BLOOD VESSELS (900-904)

- 904 Injury to blood vessels of lower extremity and unspecified sites**
 - 904.5 Injury to blood vessels of lower extremity. Tibial blood vessels**
 - 904.50 Injury to blood vessels of lower extremity. Tibial vessel(s), unspecified**
 - 904.51 Injury to blood vessels of lower extremity. Anterior tibial artery**
 - 904.52 Injury to blood vessels of lower extremity. Anterior tibial vein**
 - 904.53 Injury to blood vessels of lower extremity. Posterior tibial artery**
 - 904.54 Injury to blood vessels of lower extremity. Posterior tibial vein**
 - 904.6 Injury to blood vessels of lower extremity. Deep plantar blood vessels**
 - 904.7 Injury to blood vessels of lower extremity. Other specified blood vessels of lower extremity Multiple blood vessels of lower extremity**
 - 904.8 Injury to blood vessels of lower extremity. Unspecified blood vessel of lower extremity**
 - 904.9 Injury to blood vessels of lower extremity. Unspecified site Injury to blood vessel NOS**

LATE EFFECTS OF INJURIES, POISONINGS, TOXIC EFFECTS, AND OTHER EXTERNAL CAUSES (905-909)

905 Late effects of musculoskeletal and connective tissue injuries

- 905.4 Late effect of fracture of lower extremities. Late effect of injury classifiable to 821-827**
- 905.6 Late effect of dislocation. Late effect of injury classifiable to 830-839**
- 905.7 Late effect of sprain and strain without mention of tendon injury Late effect of injury classifiable to 840-848, except tendon injury**
- 905.8 Late effect of tendon injury. Late effect of tendon injury due to: open wound [injury classifiable to 880-884 with .2, 890-894 with .2] sprain and strain [injury classifiable to 840-848]**
- 905.9 Late effect of traumatic amputation Late effect of injury classifiable to 885-887, 895-897**

906 Late effects of injuries to skin and subcutaneous tissues

- 906.1 Late effect of open wound of extremities without mention of tendon injury. Late effect of injury classifiable to 880-884, 890-894 except .2**
- 906.2 Late effect of superficial injury. Late effect of injury classifiable to 910-919**
- 906.3 Late effect of contusion. Late effect of injury classifiable to 920-924**
- 906.4 Late effect of crushing. Late effect of injury classifiable to 925-929**
- 906.7 Late effect of burn of other extremities. Late effect of injury classifiable to 943 or 945**

SUPERFICIAL INJURY (910-919)

917 Superficial injury of foot and toe(s)

- 917.0 Abrasion or friction burn without mention of infection**
- 917.1 Abrasion or friction burn, foot/toes infected**
- 917.2 Blister without mention of infection**
- 917.3 Blister, foot/toes, with infection**
- 917.4 Insect bite, nonvenomous, without mention of infection**
- 917.5 Insect bite, nonvenomous, infected**
- 917.6 Foreign body, superficial (splinter), without major open wound without infection**
- 917.7 Foreign body, superficial (splinter), without major open wound with infection**
- 917.8 Other and unspecified superficial injury of foot and toes without mention of infection**
- 917.9 Other and unspecified superficial injury of foot and toes, infected**

CONTUSION WITH INTACT SKIN SURFACE (920-924)

924 Contusion of lower limb and of other and unspecified sites

- 924.2 Ankle and foot, excluding toe(s)**
 - 924.20 Contusion, foot, heel**
 - 924.21 Contusion, ankle**
- 924.3 Contusion, toe, toenail**

CRUSHING INJURY (925-929)

928 Crushing injury of lower limb

- 928.2 Ankle and foot, excluding toe(s) alone
 - 928.20 Crush, crushed, crushing injury, foot (except toe(s) alone)
 - 928.21 Crush, crushed, crushing injury, ankle
- 928.3 Crush, crushed, crushing injury, toe(s)

BURNS (940-949)

945 Burn of lower limb(s)

- 945.0 Burn, unspecified degree *check fifth 0-3,9
- 945.1 Erythema [first degree] *check fifth 0-3,9
- 945.2 Blisters, epidermal loss [second degree] *check fifth 0-3,9
- 945.3 Full-thickness skin loss [third degree NOS] *check fifth 0-3,9
- 945.4 Deep necrosis of underlying tissues [deep third degree] without mention of loss of a body part *check fifth 0-3,9
- 945.5 Deep necrosis of underlying tissues [deep third degree] with loss of a body part *check fifth 0-3,9

INJURY TO NERVES AND SPINAL CORD (950-957)

956 Injury to peripheral nerve(s) of pelvic girdle and lower limb

- 956.0 Sciatic nerve
- 956.1 Femoral nerve
- 956.2 Posterior tibial nerve
- 956.3 Peroneal nerve
- 956.4 Cutaneous sensory nerve, lower limb
- 956.5 Other specified nerve(s) of pelvic girdle and lower limb
- 956.8 Multiple nerves of pelvic girdle and lower limb
- 956.9 Unspecified nerve of pelvic girdle and lower limb

CERTAIN TRAUMATIC COMPLICATIONS AND UNSPECIFIED INJURIES (958-959)

958 Certain early complications of trauma

- 958.3 Posttraumatic wound infection, not elsewhere classified
- 959 Injury, other and unspecified**
- 959.7 Knee, leg, ankle, and foot

TOXIC EFFECTS OF SUBSTANCES CHIEFLY NONMEDICINAL AS TO SOURCE (980-989)

989 Toxic effect of other substances, chiefly nonmedicinal as to source

- 989.5 Venom. Bites of venomous snakes, lizards, and spiders, Tick paralysis

OTHER AND UNSPECIFIED EFFECTS OF EXTERNAL CAUSES (990-995)

991 Effects of reduced temperature

- 991.2 Frostbite
- 991.4 Immersion foot. Trench foot
- 991.5 Chilblains. Erythema pernio, Perniosis

COMPLICATIONS OF SURGICAL AND MEDICAL CARE, NOT ELSEWHERE CLASSIFIED (996-999)

996 Complications peculiar to certain specified procedures

- 996.4 Mechanical complication of internal orthopedic device, implant, and graft. Mechanical complications involving: external (fixation) device utilizing internal screw(s), pin(s) or other methods of fixation grafts of bone, cartilage, muscle, or tendon; internal (fixation) device such as nail, plate, rod, etc.
- 996.6 Infection and inflammatory reaction due to internal prosthetic device, implant, and graft. Infection (causing obstruction) due to (presence of) any device, implant, and graft classifiable to 996.0-996.5. Inflammation due to (presence of) any device, implant, and graft classifiable to 996.0- 996.5. Use additional code to identify specified infections
 - 996.66 Complications, orthopaedic device, joint prosthesis, infection or inflammation
 - 996.67 Due to other internal orthopedic device, implant and graft Bone growth stimulator (electrode) Internal fixation device (pin) (rod) (screw)
- 996.7 Other complications of internal (biological) (synthetic) prosthetic device, implant, and graft, etc.
 - 996.70 Due to unspecified device, implant, and graft
 - 996.77 Complications, orthopaedic device, joint prosthesis
 - 996.78 Complications, orthopaedic device, implant or graft, internal
- 997 Complications affecting specified body systems, not elsewhere classified. Use additional code to identify complication
 - 997.2 Peripheral vascular complications. Phlebitis or thrombophlebitis during or resulting from a procedure
 - 997.6 Amputation stump complication
 - 997.60 Complications, amputation stump (surgical)
 - 997.61 Complications, amputation stump, neuroma
 - 997.62 Complications, amputation stump, infection (chronic). Use additional code to identify organism
 - 997.69 Complications, amputation stump, not elsewhere classified
- 998 Other complications of procedures, NEC
 - 998.1 Hemorrhage or hematoma or seroma complicating a procedure
 - 998.11 Complications, hemorrhage (complicating a surgical procedure), intraoperative, postoperative
 - 998.12 Complications, hematoma (complicating a surgical procedure)
 - 998.13 Complications, seroma (complicating a surgical procedure)
 - 998.2 Accidental puncture or laceration during a procedure. Accidental perforation by catheter or other instrument during a procedure on: blood vessel, nerve, organ
 - 998.3 Disruption of operation wound. Dehiscence of operation wound, Rupture of

operation wound

998.4 Foreign body accidentally left during a procedure

998.5 Postoperative infection

998.51 Complications, seroma (complicating s surgical procedure) infected, postoperative. Use additional code to identify organism

998.59 Other postoperative infection Abscess postoperative: stitch postoperative; wound postoperative. Use additional code to identify infection

998.8 Other specified complications of procedures, not elsewhere classified

998.83 Complications, non-healing surgical wound

998.89 Other specified complications. Granuloma, stitch (post operative)

SUPPLEMENTARY CLASSIFICATION OF FACTORS INFLUENCING HEALTH STATUS AND CONTACT WITH HEALTH SERVICES (V01-V82)

This classification is provided to deal with occasions when circumstances other than a disease or injury classifiable to categories 001-999 (the main part of ICD) are recorded as "diagnoses" or "problems." This can arise mainly in three ways:

- a) When a person who is not currently sick encounters the health services for some specific purpose, such as to act as a donor of an organ or tissue, to receive prophylactic vaccination, or to discuss a problem which is in itself not a disease or injury. This will be a fairly rare occurrence among hospital inpatients, but will be relatively more common among hospital outpatients and patients of family practitioners, health clinics, etc.**
- b) When a person with a known disease or injury, whether it is current or resolving, encounters the health care system for a specific treatment of that disease or injury (e.g., dialysis for renal disease; chemotherapy for malignancy; cast change).**
- c) When some circumstance or problem is present which influences the person's health status but is not in itself a current illness or injury. Such factors may be elicited during population surveys, when the person may or may not be currently sick, or be recorded as an additional factor to be borne in mind when the person is receiving care for some current illness or injury classifiable to categories 001-999.**

In the latter circumstances the V code should be used only as a supplementary code and should not be the one selected for use in primary, single cause tabulations. Examples of these circumstances are a personal history of certain diseases, or a person with an artificial heart valve in situ.

V45 Other postsurgical states

V45.4 Arthrodesis status

V49 Problems with limbs and other problems

V49.70 Amputation status, Unspecified level

V49.71 Amputation status, Great toe

V49.72 Amputation status, Other toe(s)

V49.73 Amputation status, Foot

V49.74 Amputation status, Ankle

V53 Fitting and adjustment of other device

V53.7 Orthopaedic (device) brace, cast, shoes

V54 Other orthopedic aftercare

V54.0 Aftercare involving removal of fracture plate or other internal fixation device.

Removal of: pins, plates, rods, screws

V54.8 Other orthopedic aftercare. Change, checking, or removal of: Kirschner wire, plaster cast, splint, external, other external fixation or traction device

V54.9 Unspecified orthopedic aftercare

V67 Follow-up examination

V67.0 Follow-up (exam), surgery

V67.4 Aftercare,orthopaedic, follow-up examination, treatment for fracture

V67.4 Following treatment of healed fracture