Study Guide

I. General Information

The purpose of this study guide is to familiarize the candidate with the examination process leading to Board Certified or Board Qualified classification conferred by the American Board of Podiatric Medicine (ABPM). The study guide will also cover information related to the Self-Assessment examination (for re-credentialing purposes only).

The Qualification and Certification examinations are administered in web-based formats and are offered at Test Centers nationally. Both are designed to measure different cognitive areas. The qualification examination is primarily designed to assess a candidate’s breadth of knowledge, while the certification examination is designed to assess the thought processes of the candidate when faced with a number of clinical case presentations. In general, certification questions center on the appropriateness of data gathering for the history and physical examination, the differential diagnosis process, the ordering and interpretation of diagnostic tests, and the adoption of appropriate treatment options and case management regimens. Both portions of the examination focus on experience and clinically relevant situations and avoid recall of obscure facts or eponyms.

The Self-Assessment examination, administered in a web-based format, is administered through the ABPM website and consists of 100 questions in a variety of short answer forms, e.g. multiple choice, matching, etc. The self-assessment examination does not include a “passing score”. Candidates may view their individual results after completion of the examination on the website. Confirmation of fulfillment of re-credentialing letters will be sent to all candidates about 4 weeks after the process is complete.

II. How to Study for the Examination

1. Read this Study Guide to learn as much as you can about the examination process.
2. Answer the sample qualification questions presented without looking at the answer key. Then score yourself and note any pattern showing a weakness in any particular subject area. Review the certification question presented.
3. References listed on the Suggested Reading List are only one resource and are provided as a guide. They are by no means comprehensive. Candidates are advised to refer to current literature and journals for the most current information on a subject.
4. Make time to prepare for the examinations. Cramming and intensive study may not be helpful. Candidates who prepare by careful review are sometimes less anxious during the exam and may perform better.

II. Examination Construction

The examinations are prepared by the Examination Committee. The Examination Committee is composed of Diplomates representing a variety of geographic and clinical backgrounds, such as private practice, the military, academia, and the Department of Veterans Affairs. Committee members are chosen for their expertise in the subject areas. The qualification and certification examination are field tested and evaluated psychometrically to ensure quality, relevance, and clarity. The only questions included in the examination are those that meet these criteria.

III. Scoring

Scoring, the interpretation of scores, and the determination of what constitutes a passing score are the responsibility of the Board of Directors, in consultation with the Board’s psychometricians. On occasion, a question may be double keyed (more than one response is considered correct), or eliminated. The passing score is based upon a percentage of correct responses, and is not done on a curve. Several statistical parameters are utilized to determine the passing score, and it may vary from year to year. Candidates are typically advised of their results within eight weeks of the examination, after scoring has been completed. The Board of Directors does not make the examination available to the candidate after the examination is given.

The certification examination consists of a series of questions representing a diversity of clinical situations and subject areas and emphasizing different aspects of clinical acumen. For each question, the Examination Committee has specified a certain number of agreed-upon salient aspects of the case, or “points to pass”. The number of “points to pass” required, for each case presentation, varies depending upon the case.

The total number of questions needed to pass the certification examination is predetermined by the Board of Directors. Candidates will be advised at the time of the examination as to the total number of questions comprising the certification examination. Scoring is completed electronically. Upon reporting of examination results, candidates will be advised of the number of questions (clinical cases presented) passed. The Board will not, however, specify individual question results, nor will it make the questions available to the candidates for future review. This policy is necessary to maintain examination integrity.
IV. Qualification Examination Content
The following subject areas are tested to determine Board Qualified or Board Certified classification, along with their approximate proportional representation in the qualification examination. Categories may include imaging, laboratory (including gait studies), pharmacology and special considerations in pediatric and geriatric patients, as is appropriate. Both local and systemic manifestations of podiatrically relevant pathology will be assessed.

I) Podiatric Orthopedics (50%): Each section includes the general podiatric orthopedics knowledge that is required to assure the overall well-being of the patient. Within the podiatric orthopedics section each of the following areas will represent approximately 8% (4% of the total exam). These areas may include neurologic and rheumatologic manifestations of podiatric orthopedic pathology.

Anesthesia
- Preoperative evaluation and risk assessment
- Local anesthesia
- General, spinal, regional anesthesia

General surgery and subspecialties
- Perioperative management
- General surgical principles

Medical imaging
- Plain radiography
- Advanced imaging (nuclear imaging, CT, MRI, PET, bone densitometry)
- Diagnostic ultrasound

Pain management

Pathomechanics
- Orthotics and prosthetics
- Footwear/Pedorthics
- Interpretation of a biomechanical and gait exam

Physical medicine and rehab

Podiatric surgery
- Surgical indications
- Identification and management of complications

Podiatric trauma and sports medicine

Podopediatrics

II) Podiatric Medicine (50%): Each section includes the general medical knowledge that is required to assure the overall well-being of the patient (i.e. primary care/triage). Within the podiatric medicine section each of the following areas will represent approximately 4% (2% of the total exam.)

Cardiology / Pulmonology

Dermatology
- General dermatology
- Lower extremity dermatology

Emergency Medicine
- General emergencies
- Lower extremity emergencies

Endocrine

Gastroenterology

Hematology / Oncology

Infectious Disease
- Systemic
- Lower extremity (soft tissue and bone infections)

Nephrology / Urology

Neurology
- Electrodiagnostic studies
- CNS disorders
- PNS disorders

**Pathology**
- Laboratory studies
- Anatomic and cellular pathology

**Public Health**
- Behavioral science
- Professionalism (legal and ethical obligations)
- Research and biostatics
Rheumatology
Vascular Diagnostics and Management
Wound Care
- Evaluation
- Principles (including debridement, offloading, dressings)
- Adjunctive therapies (including NPWT, HBOT)
- Procedure principles

The qualification examination consists of 200 multiple-choice questions. Each question is followed by four or more responses, of which there is a single best response available. Key words in the question stem, such as most, least, only, or except are highlighted to facilitate comprehension. Specifically avoided are questions with responses such as "all of the above," "none of the above," or in which responses are combined, such as "A. and C."

Set Questions. On occasion, a modification of the single-item multiple-choice format is presented in a "set" format, whereby a case history is presented in paragraph form, and several multiple-choice questions follow, pertaining to the case history. Scoring of these questions is identical to the single-item format, with each question individually scored.

In the qualification examination there is no penalty for guessing, therefore all questions should be answered. Ample time is scheduled for completing the examination. Sample qualification examinations start on page 9. The answers appear at the end of the question section.

V. The Certification Examination
The board certification examination consists of a variety of separate clinical scenarios that need to be worked through by the candidate. The clinical scenarios and related questions may embrace any of the areas listed in the Subject Outline appearing elsewhere in this document. Candidates are provided with initial patient information and other relevant clinical material from which to work through the case. Each segment of the question is assigned specific scoring criteria. For example, a candidate may receive separate credit for completing an appropriate history and physical, requesting adequate additional studies to determine the diagnosis, making the proper diagnosis, determining the appropriate treatment plan, etc. The particular scoring requirements of a case vary based on the case presented. Sample cases are presented on the ABPM website.
SAMPLE BOARD QUALIFICATION EXAMINATION QUESTIONS

Below are sample questions of the type to be used in the qualification portion of the examination. Answers are found at the end of the document.

1. A 45 year old male with diabetes mellitus type II presents for evaluation of a painful hammer toe of the third digit. The patient has diminished sensation and denies a history of trauma.

   Based on the accompanying radiograph, which of the following is the most appropriate diagnosis?

   A. Avascular necrosis
   B. Fracture
   C. Osteochondroma
   D. Enchondroma

2. A consultation is requested to the ICU for this 67 year-old female with diabetes mellitus type I who was admitted for diabetic ketoacidosis. The patient was last heard from two days prior to admission and found in her apartment by her sister. No history is available due to the patient’s inability to communicate. Her foot is pictured below.

   What is the most appropriate treatment?

   A. Initiate culture driven IV antibiotics
   B. Apply NS wet to dry dressings until patient is alert
   C. Incise and drain in operating room
   D. Apply an enzymatic debriding agent to the wound bed
3. A 73 year old male has diabetes mellitus type II, congestive heart failure, renal insufficiency, peripheral vascular disease and an open left second toe amputation. He presents to the emergency room with fever, chills, nausea and vomiting for the last 24 hours. His medications are:

Ciprofloxacin (Cipro), lispro (Humalog), metoprolol (Toprol) and warfarin (Coumadin).

Allergies: penicillin and tetanus toxoid.

Vitals: Temp: 97.4F  BP 98/47  P:61  O² 93%

Which of the following advanced imaging studies would be the most appropriate?

A. Bone Scan
B. Densitometry
C. MRI
D. Computed tomography

4. A 34 year old male with a history of AIDS presents with the following unilateral lesions of the plantar aspect of his left foot. The lesions are firm, but not hard and are vascular in appearance. They are asymptomatic; however the patient relates that they have been slowly growing over the past year.

Which of the following conditions is most likely?

A. Sarcoidosis
B. Melanoma
C. Mycosis fungoides
D. Kaposi’s sarcoma
5. A patient who presents with pain at the first MTP joint is diagnosed with metatarsus primus elevatus. Which of the following physical exam finding is most likely present?

A. Hallux valgus
B. Hallux hammertoe
C. Dorsally contracted second toe
D. Dorsal hypertrophy, first metatarsal head

6. A patient presents with severe Achilles tendonitis. MRI findings reveal longitudinal tearing of the tendon fibers. She is not a surgical candidate, due to peripheral vascular disease, damaged kidneys and decreased peripheral sensation secondary to chemotherapy treatment for lymphoma. Which of the ankle-foot orthoses shown is the most appropriate for this patient?

A. Option A
B. Option B
C. Option C
D. Option D
7. You are consulted for evaluation of a 6 month old with the left foot deformity shown, present since birth. Clinically the condition is flexible. No other abnormalities are noted.

Which of the following is the most appropriate initial treatment for this deformity?

A. Counter Rotation Splint  
B. AFO  
C. Serial casting  
D. Surgical correction

8. A 4 year-old male is referred for evaluation of pain on the inner aspect of the left foot and abnormal gait for the past month, when his sister accidentally landed on his foot while playing. The condition is worsening. Musculoskeletal examination reveals smooth, unrestricted range of motion at the ankle, STJ and MTJ bilaterally. Gait is antalgic on the left with persistent supination of the left foot. Radiographs are shown.

Based on the suspected diagnosis, which of the following is the most appropriate treatment at this time?

A. Cast immobilization  
B. NSAID therapy; PTB brace  
C. AFO  
D. UCBL with valgus rearfoot post
9. A 56 year-old male complains of long-term pain in his first MTP joint. Examination reveals moderately severe pain and crepitation with dorsiflexion. He is undomiciled and uninsured. Radiographs are shown.

Which of the following shoe recommendations/modifications are most appropriate for this patient?

A. Heel lift  
B. Negative heel  
C. Less rigid-sole  
D. Metatarsal rocker bar

10. A patient who previously underwent an Austin bunionectomy complains of dorsal pain of the right hallux. The hallux does not purchase the ground with weight bearing. The hallux range of motion is a total of 60°.

Which of the following procedures is most appropriate for this patient?

A. Hallux interphalangeal arthrodesis  
B. Keller arthroplasty  
C. Scarf osteotomy of first metatarsal  
D. Arthrodesis of first MTP joint
11. These are the radiographs of a 26 year-old male, in good health, who presented to the ED 30 minutes after a gunshot wound to the right foot. A 2.0 cm. entrance wound is located on the dorsum of the first MTP joint.

Initial care for the patient should include all the following **EXCEPT**:

A. Irrigation & debridement  
B. Cast immobilization  
C. Tetanus prophylaxis  
D. Primary fracture fixation  
E. Antibiotics

12. A 60 year-old female presents for biopsy of the right fourth nail. Past surgical history includes aortic valve replacement. Medications include 5 mg of Coumadin (warfarin) daily. Her INR is 3.5 (0.9-1.2).

Which of the following is the most appropriate course of action?

A. Prescribe post-op antibiotics  
B. Discontinue warfarin for 3-5 days before pre-op and start antibiotics post-op  
C. Discontinue warfarin for 3-5 days and provide antibiotic prophylaxis pre-op  
D. Prescribe pre-op antibiotics and perform the biopsy
13. A 34 year-old construction worker fell from a ladder at work. Muscle testing on the right reveals +2/5 strength of the peroneals, extensor hallucis longus, extensor digitorum longus, and posterior tibial muscles. His MRI is shown.

Which of the following is most consistent with these findings?

A. Low back strain
B. Spinal stenosis
C. Disk herniation
D. Tumor

14. A 48 year-old female presents with pruritic water blisters on her right foot. She has previously tried over the counter Lotrimin Ultra and Cortisone 10.

Which of the following oral medications would be the most effective for this patient?

A. Terbinafine
B. Acyclovir
C. Tetracycline
D. Prednisone
15. A 23 year-old male complains of long-standing heel pain combined with a history of intermittent low back and hip pain. Radiograph is shown. Laboratory findings reveal a positive HLA-B27.

Which of the following is the most likely diagnosis?

A. Rheumatoid arthritis
B. Systemic lupus erythematosus
C. Ankylosing spondylitis
D. Gouty arthritis

16. An 81 year-old female is seen with darkening of the toes as shown, which began 1 week ago. She has Type 2 DM, loss of protective threshold and an ABI of 0.8. She was recently diagnosed with atrial fibrillation.

Which of the following is the most likely diagnosis?

A. Shower emboli
B. Ischemic changes
C. Raynaud’s phenomenon
D. Perfringens infection
17. A 49 year-old male with Type 2 DM presents with the ulceration shown, of 8 weeks duration. He denies pain, redness or swelling. He notes clear fluid accumulating on his socks during the day, with odor. Examination reveals palpable pedal pulses and absent protective threshold.

Which of the following is the most appropriate initial treatment for this wound?

A. Admit; begin IV antibiotics; schedule for surgical debridement  
B. Debride; obtain tissue cultures; radiographs; off-load the wound  
C. Order MRI; begin Cipro 500mg Q12; prescribe depth inlay shoes  
D. Swab culture; order CT angiography with runoff; apply enzymatic debriding agent

18. A 54 year-old female presents with a non-healing foot ulcer. Examination reveals an ankle brachial index of 1.2 (>1) and a TCP02 of 45 mmHg (>55 mm Hg).

Which of the following is the most likely explanation?

A. Poor arterial collateralization  
B. Medial calcific sclerosis affected the study results  
C. Vasospastic disease  
D. Venous congestion
19. A 68 year-old RA female with the deformities shown is scheduled for first MTP joint arthrodesis with resection of metatarsal heads 2, 3, 4, 5.

Which of the following is the best post-op gait assistive device for partial weight bearing for this patient?

A. Single pronged cane  
B. Four pronged cane  
C. Forearm crutch  
D. Platform crutch

20. A 32 year-old female tennis player presents for recent acute pain in the posterior right ankle during a match. MRI is shown.

Which of the following is the most likely diagnosis?

A. Inflamed retrocalcaneal bursa  
B. Tumor or mass within the Achilles tendon  
C. Avulsion fracture of the calcaneus at the Achilles tendon insertion  
D. Partial rupture of the Achilles tendon
21. A 56 year-old male complains of long-term pain in his first MTP joint. Examination reveals moderately severe pain and crepitation with dorsiflexion. He is undomiciled and uninsured. Radiographs are shown.

Which of the following shoe recommendations/modifications are most appropriate for this patient?

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B. Negative heel
C. Less rigid-sole
D. Metatarsal rocker bar

22. A 4 year-old male is referred for evaluation of pain on the inner aspect of the left foot and abnormal gait for the past month, when his sister accidentally landed on his foot while playing. The condition is worsening. Musculoskeletal examination reveals smooth, unrestricted range of motion at the ankle, STJ and MTJ bilaterally. Gait is antalgic on the left with persistent supination of the left foot. Radiographs are shown.

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24. A patient presents with severe Achilles tendonitis. MRI findings reveal longitudinal tearing of the tendon fibers. She is not a surgical candidate, due to peripheral vascular disease, damaged kidneys and decreased peripheral sensation secondary to chemotherapy treatment for lymphoma.

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B. Option B  
C. Option C  
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25. A patient who presents with pain at the first MTP joint is diagnosed with metatarsus primus elevatus.

Which of the following physical exam finding is most likely present?

A. Hallux valgus
B. Hallux hammertoe
C. Dorsally contracted second toe
D. Dorsal hypertrophy, first metatarsal head

Answers: 1.d, 2.c, 3.c, 4.d, 5.a, 6.a, 7.c, 8.a, 9.d, 10.d, 11.b, 12.c, 13.c, 14.a, 15.c, 16.a, 17.b, 18.b, 19.d, 20.d, 21.d, 22.a, 23.c, 24.a, 25.d
VIII. Suggested Reading List

Below is a suggested reading list provided by ABPM. This may be used as a study guide and is in no way intended to be inclusive.

Pathomechanics

*Kinesiology of the Musculoskeletal System: Foundations of Physical Rehabilitation ed 2,*
Neumann, Donald A.,

*Clinical Biomechanics of the Lower Extremities,*
Valmassy, Ronald,
St. Louis: Mosby, 1996.

*Lower Extremity Biomechanics, Theory and Practice Volume 1,*
Albert, Stephen,

*Recent Advances in Orthotic Therapy, Lower Extremity Review,*
Scherer, Paul,
LLC, 2011.

*Biomechanics of the Foot and Ankle,*
Robert Donatelli PT PhD,
F A Davis Co, October 15, 1995.

*Foot Function: A Programmed Text,*
Michael Seibel DO,
Williams & Wilkins, October 1988.

*Normal and Abnormal Function of the Foot,*
Merton Root DPM, John H. Weed, William P. Orien,

*Foot and Ankle, 2nd Edition,*
David Thordarson MD, Paul Tornetta, Thomas A. Einhorn,
Lippincott Williams & Wilkins, 03/01/2004.

*Human Locomotion: The Conservative Management of Gait Related Disorders,*
Thomas Michaud DC,

*Gait Analysis: Normal and Pathological Function,*
Jacquelin Perry MD, Judith Burnfield PhD PT,

*The Foot: Examination and Diagnosis, 2nd Edition,*
Ian Alexander MD,
Elsevier Health Sciences Publication, 01/28/1997.
Internal Medicine and Medical Subspecialties

Chronic hepatitis B.
Lok AS, McMahon BJ.
Hepatology. 2007;45(2):507

Round, pitting lesions on the lower leg. Necrobiosis lipoidica.
Shalhoop H.
JAAPA. 2010;23:14


Prognostic laboratory markers of joint damage in rheumatoid arthritis.
Lindqvist E, et al.
Ann Rheum Dis 2005; 64: 196

Clinical practice. Lichen planus.
Le Cleach L, Chosidow O.

American College of Cardiology/American Heart Association Task Force. 2008 Focused update incorporated into the ACC/AHA 2006 guidelines for the management of patients with valvular heart disease
Bonow RO, Carabello BA, et al.

Harrison’s Principles of Internal Medicine, 18e.

Foster, Corey.

Standards of Medical Care in Diabetes 2015 Diabetes Care 38, S5, 2015.


Antithrombotic therapy for VTE disease: chest guideline and expert panel report.
Kearon C, Akl EA, Ornelas J, et al.
Chest 149, 315, 2016.

Wound Care

Hingerani A1, LaMuraglia GM2, et al.

IWGDF Guidance on footwear and offloading interventions to prevent and heal foot ulcers in patients with diabetes S. A. Bus1 ; D. G. Armstrong2, et al.
IWGDF Guidance on footwear and offloading interventions to prevent and heal foot ulcers in patients with diabetes © 2015

J. Vasc. Surg., 2014

Diagnostic approach to patients with suspected vasculitis
Suresh E
BSR and BHPR guideline for the management of adults with ANCA-associated vasculitis
*Rheumatology*, 2014

Venous leg ulcers: Pathophysiology and Classification
Vasudevan B

Executive summary: 2012 Infectious Diseases Society of America clinical practice guideline for the diagnosis and treatment of diabetic foot infections
Lipsky BA, Berendt AR, Cornia PB, Pile JC, Peters EJ, Armstrong DG et al.

A Comprehensive Review on Marjolin’s Ulcers: Diagnosis and Treatment
Pekarek B, Buck S, Osher L

Diagnosis and treatment of pyoderma gangrenosum
Brooklyn T, Dunnill G, Probert C
*BMJ*, 2006

Prevention and Treatment of Pressure Ulcers: Quick Reference Guide

**Surgical Principles; Podiatric, General, and Surgical subspecialties**

Clinical practice guidelines for antimicrobial prophylaxis in surgery

Flexible Pediatric and Adolescent Pes Planovalgus: Conservative and Surgical Treatment Options,
Blitz NM, Stabile RJ, Giorgini RJ, DiDomenico LA,

American College of Foot and Ankle Surgeons’ Clinical Consensus Statement: Perioperative Prophylactic Antibiotic Use in Clean Elective Foot Surgery,
Dayton P, DeVries JG, Landsman A, Meyr A, Schweinberger M,

Multicenter Retrospective Review of Outcomes for Arthrodesis, Hemi-Metallic Joint Implant, and Resectional Arthroplasty in the Surgical Treatment of End-Stage Hallux Rigidus,
Kim PJ, Hatch D, DiDomenico LA, Lee MS, Kaczander B, Count Gary, Kravette M, A