

Ten Things Physicians and Patients Should Question

1

Avoid routine use of pharmacologic DVT prophylaxis in elective foot and ankle surgery.

The decision of whether to implement pharmacologic prophylaxis should take into account the risk of deep venous thromboembolism (DVT) in the absence of prophylaxis, and the potential adverse effects associated with the use of pharmacologic prophylaxis. Routine use may in fact be harmful, particularly in patients at lowest risk for DVT. The final decision regarding use of pharmacologic prophylaxis should be agreed upon by the physician and patient after a discussion of the potential benefits and harms as they relate to the individual.

2

Don't culture or treat clinically uninfected lower extremity wounds with systemic antibiotics.

Uninfected wounds are contaminated with surface flora and will yield false positive culture results. Furthermore, wounds that are not clinically infected do not require antibiotics and the unnecessary prescription of antibiotics may have harmful side effects and lead to further antibiotic resistance.

3

Avoid ordering MRI in patients with suspected acute Achilles tendon ruptures.

MRI is expensive and can lead to treatment delays. History and physical exam findings can establish the diagnosis of acute Achilles tendon ruptures in nearly all instances. Physicians should reserve MRI for atypical presentations and subacute or neglected ruptures when preoperative planning is needed. When physicians prefer to use the rupture gap (i.e., apposition of tendon ends) as criteria for management (surgery versus conservative treatment), dynamic ultrasound can be easily substituted.

4

Don't use synthetic or donated grafts on diabetic foot wounds without first allowing for an adequate trial of standard wound care.

Most diabetic foot wounds will heal when proper wound care is performed. The standard of care includes treating any infection present, ensuring there is adequate circulation for healing, taking pressure off the wound (offloading) and regular debridement. Synthetic or donated grafts are expensive and are ineffective without first performing the standard of care. If a wound being treated with standard care has not healed by at least 50 percent in four weeks, synthetic or donated grafts may then be necessary.

5

Don't routinely use MRI to diagnose bone infection (osteomyelitis) in the foot.

When the diagnosis of osteomyelitis can be reliably established by clinical means and/or serial plain film radiographs, MRI is generally unnecessary. Furthermore, MRI is particularly poor at differentiating osteomyelitis from benign postoperative marrow edema and from marrow edema due to Charcot arthropathy. Use of MRI in these instances can lead to a false positive interpretation and potentially harmful overtreatment.

6

Avoid ordering arterial segmental pressures of the lower extremities without toe pressures in patients with diabetes and foot ulceration.

Systolic ankle pressures can lack predictive validity for wound healing due to calcification of the ankle arteries. This is especially true of patients with diabetes and advanced complications where vessel calcifications are observed in 53–66% of patients. Compared to ankle pressures, toe pressures appear to be more predictive of distal arterial perfusion and wound healing potential in patients with diabetes. If toe pressures are requested at the time of the initial order, repeat studies performed solely for the purpose of obtaining toe pressures can be avoided.

7

Don't prescribe neuropathic pain agents for painless neuropathy.

Diabetic peripheral neuropathy is a progressive condition that may be painful or painless. Neuropathic pain agents (e.g. anticonvulsants or antidepressants) have been studied to reduce painful symptoms in those with neuropathy; however, they have no effect on painless neuropathy and their many side effects can cause unnecessary harm (e.g., unwanted drug interactions, increased fall risk, etc.).

8

Avoid major reconstructive surgical intervention on children with clubfoot without prior Ponseti casting therapy per standard protocols.

The Ponseti method has become the standard of care worldwide for treatment of pediatric clubfoot deformity. The success rates for clubfoot treatment with the Ponseti method, when properly administered, is 95%. In cases where rigid or neglected deformities are encountered, the Ponseti method can reduce the complexity of the deformity, thereby reducing complexity of surgical intervention and potential complications. Failure to consider Ponseti therapy first, may subject patients to unnecessary surgery and/or more complicated reconstruction attempts that might have otherwise been avoided.

9

Avoid using expensive fixation in hammertoe surgery without first engaging in shared decision making to evaluate alternatives.

From an efficacy standpoint, there is no clear benefit to using commercially available hammertoe implants over conventional K-wire fixation, and the cost of commercial devices, when used routinely, may be prohibitive. Since some patients may prefer the idea of not having implantable hardware retained for life, while others may not want hardware exiting the toe during the immediate postoperative period, selection of hammertoe fixation represents an opportunity for shared decision making.

10

Don't prophylactically use compounded antibiotic soaks for aftercare following office-based procedures (e.g., nail and skin lesion removal).

The marked increase of prescribing and dispensing of compounded antibiotic powders for soaking after non-complicated office-based procedures has shown no more effectiveness than the current standard (i.e., over-the-counter Betadine, white vinegar, astringent soaks and Epsom salts) while having the obvious downside of adding significant overall cost to in-office procedures. The hundreds of dollars being spent on these expensive substitutes represents medical waste.

How This List Was Created (1–5)

The American Podiatric Medical Association's (APMA) Clinical Practice Advisory Committee, consisting of APMA members, board members, young members and liaisons with special interests in a variety of subspecialty areas within podiatric practice, formulated the recommendations for the ABIM Foundation's Choosing Wisely Campaign. The Committee worked with podiatric colleagues to create an initial list of recommendations, which was reviewed and narrowed down to eight recommendations. The list of eight recommendations was further developed and distributed to the Committee for ranking in numerical order. Committee members were asked to rank the recommendations based on their relevance, timeliness, strength of supporting evidence and appropriateness for inclusion in the Choosing Wisely Campaign. The rankings and deliberation enabled the Committee to come to the final five recommendations, which were again reviewed to ensure appropriate evidence was used to support each recommendation. The final recommendations were approved by the Board of Trustees of the APMA before submission to the ABIM Foundation.

How This List Was Created (6–10)

The American Podiatric Medical Association (APMA) tasked their Clinical Practice Advisory Committee consisting of APMA members, board members, young members, and liaisons with special interests in a variety of subspecialty areas within podiatric practice to formulate the recommendations for the ABIM Foundation's *Choosing Wisely* Campaign. The Committee worked with podiatric colleagues to create an initial list of recommendations, which was reviewed and narrowed down to nine recommendations. The list of nine recommendations was further developed and distributed to the Committee for ranking in numerical order. Committee members were asked to rank the recommendations based on their relevance, timeliness, strength of supporting evidence and appropriateness for inclusion in the *Choosing Wisely* Campaign. The rankings and deliberation allowed the Committee to come to the final five recommendations, which were again reviewed to ensure appropriate evidence was used to support each recommendation. The final recommendations were approved by the Board of Trustees of the APMA before submission to the ABIM Foundation.

APMA's disclosure and conflict of interest policy can be found at www.apma.org.

Sources

1

Fleischer AE, Abicht BP, Baker JR, Boffeli TJ, Jupiter DC, Schade VL. American College of Foot and Ankle Surgeons' Clinical Consensus Statement: Risk, prevention, and diagnosis of venous thromboembolism disease in foot and ankle surgery and injuries requiring immobilization. *J Foot Ankle Surg.* 2015;54:497-507.

Calder JD, Freeman R, Domeij-Arverud E, van Dijk CN, Ackermann PW. Meta-analysis and suggested guidelines for prevention of venous thromboembolism (VTE) in foot and ankle surgery. *Knee Surg Sports Traumatol Arthrosc.* 2016;24(4):1409-20.

Robinson R, Wirt TC, Barbosa C, Amidi A, Chen S, Joseph RM, Fleischer AE. Routine use of low-molecular-weight heparin for deep venous thrombosis prophylaxis after foot and ankle surgery: A cost-effectiveness analysis. *J Foot Ankle Surg.* 2018;57:543-51.

2

Lipsky BA, et al. 2012 Infectious Diseases Society of America Clinical Practice Guideline for the Diagnosis and Treatment of Diabetic Foot Infections. *CID.* 2012;54:132.

3

Singh D. Acute Achilles tendon rupture. *BMJ.* 2015;351:h4722.

Garras DN, Raiken SM, Bhat SB, Taweel N, Karanjia H. MRI is unnecessary for diagnosing acute Achilles tendon ruptures: clinical diagnostic criteria. *Clin Orthop Relat Res.* 2012;470:2268-73.

Wallace RG, Heyes GJ, Michael AL. The non-operative functional management of patients with a rupture of the tendo Achillis leads to low rates of re-rupture. *J Bone Joint Surg Br.* 2011;93:1362-66.

4

Snyder RJ, et al. The management of diabetic foot ulcers through optimal off-loading: Building consensus guidelines and practical recommendations to improve outcomes. *JAPMA.* 2014;104:555.

Snyder RJ, et al. Consensus recommendation on advancing the standard of care for treating neuropathic foot ulcers in patients with diabetes. *Ostomy Wound Manage.* 2010;56:S1-24.

Sheehan PS, et al. Percent change in wound area of diabetic foot ulcers over a 4-week period is a robust predictor of complete healing in a 12-week prospective trial. *Plast Reconstr Surg.* 2006;117:239S-244S.

5

Lipsky BA, et al. 2012 Infectious Diseases Society of America Clinical Practice Guideline for the Diagnosis and Treatment of Diabetic Foot Infections. *CID.* 2012;54:132.

Rogers LC, et al. The Charcot foot in diabetes. *Diabetes Care.* 2011;34:2123.

Ledermann HP, et al. Pitfalls and limitations of magnetic resonance imaging in chronic posttraumatic osteomyelitis. *Eur Radiol.* 2000;10:1815-23

6

Potier L, Abi KC, Mohammedi K, Roussel R. Use and utility of ankle brachial index in patients with diabetes. *Eur J Vasc Endovasc Surg.* 2011;41(1):110-6.

Barshes NR, Flores E, Belkin M, Kougas P, Armstrong DG, Mills JL Sr. The accuracy and cost-effectiveness of strategies used to identify peripheral arterial disease among patients with diabetic foot ulcers. *J Vasc Surg.* 2016;64(6):1682-90.

Wang Z, Hasan R, Firwana B, Elraiyah T, Tsapas A, Prokop L, Mills JL Sr, Murad MH. A systematic review and meta-analysis of tests to predict wound healing in diabetic foot. *J Vasc Surg.* 2016;63(2 Suppl):29S-36S.

Brownrigg JR, Hinchliffe RJ, Apelqvist J, Boyko EJ, Fitridge R, Mills JL, Reekers J, Shearman CP, Zierler RE, Schaper NC, International Working Group on the Diabetic Foot. Performance of prognostic markers in the prediction of wound healing or amputation among patients with foot ulcers in diabetes: a systematic review. *Diabetes Metab Res Rev.* 2016;32(Suppl 1):128-35.

Sharma A, Scammell BE, Fairbairn KJ, Seagrave MJ, Game FL, Jeffcoate WJ. Prevalence of calcification in the pedal arteries in diabetes complicated by foot disease. *Diabetes Care.* 2010;33(5):e66.

7

Bril V, England JD, Franklin GM, Backonja M, Cohen JA, Del Toro DR, Feldman EL, Iverson DJ, Perkins B, Russell JW, Zochodne DW, AAN, AANEM, AAPMR. Evidence-based guideline: Treatment of painful diabetic peripheral neuropathy: report of the American Academy of Neurology, the American Association of Neuromuscular and Electrodiagnostic Medicine, and the American Academy of Physical Medicine and Rehabilitation. *Muscle Nerve* 2011;43(6):910-7.

Benbow SJ, Chan AW, Bowsher D, MacFarlane A, Williams G. A prospective study of painful symptoms, small-fibre function and peripheral vascular disease in chronic painful diabetic neuropathy. *Diabet Med*. 1994;11(1):17-21.

8

Agarwal A, Gupta S, Sud A, Agarwal S. Results of Modified Ponseti Technique in Difficult Clubfoot and a Review of Literature. *J Clin Orthop Trauma*. 2020;11(2):222-31.

Digge V, Desai J, Das S. Expanded Age Indication for Ponseti Method for Correction of Congenital Idiopathic Talipes Equinovarus: A Systematic Review. *J Foot Ankle Surg*. 2018;57(1):155-8.

Ferreira GF, Stéfani KC, Haje DP, Nogueira MP. The Ponseti Method in Children with Clubfoot After Walking Age – Systematic Review and Metanalysis of Observational Studies. *PLoS One*. 2018;13(11):e0207153. Published 2018 Nov 20. doi:10.1371/journal.pone.0207153

Jowett CR, Morcuende JA, Ramachandran M. Management of congenital talipes equinovarus using the Ponseti method. *J Bone Joint Surg Br*. 2011;93(9):1160-4.

Kowalczyk B, Felus J. Ponseti Casting and Achilles Release Versus Classic Casting and Soft Tissue Releases for the Initial Treatment of Arthrogyphotic Clubfeet. *Foot Ankle Int*. 2015;36(9):1072-7.

Morcuende JA, Cook TM. The Ponseti Method in Low and Middle Income Countries: Challenges and Lessons Learned. *Foot Ankle Clin*. 2015;20(4):547-54.

Radler C. The Ponseti Method for the Treatment of Congenital Club Foot: Review of the Current Literature and Treatment Recommendations. *Int Orthop*. 2013;37(9):1747-53.

Zionts LE, Ebrahimzadeh E, Morgan R, Sangiorgio S. Sixty Years On: Ponseti Method for Clubfoot Treatment Produces High Satisfaction Despite Inherent Tendency to Relapse. *J Bone Joint Surg Am*. 2018;100(9):721-8.

9

Albright RH, Waverly B, Klein E, Weil L Jr., Weil LS Sr, Fleischer AE. Percutaneous Kirschner wire versus commercial implant for hammertoe repair: a cost-effectiveness analysis. *J Foot Ankle Surg*. 2018;57(2):332-8.

Albright RH, Hassan M, Randich J, O’Keefe R, Klein EE, Weil L Jr, Weil L Sr, Fleischer AE. Risk factors for failure in hammertoe surgery. *Foot Ankle Int*. 2020;41(5):562-71.

Kramer WC, Parman M, Marks RM. Hammertoe correction with K-wire fixation. *Foot Ankle Int*. 2015;36(5):494-502.

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There are no peer-reviewed studies to support the use of compounded antibiotic powders over what is currently available for soaking after non-complicated office-based nail and/or skin procedures. There are low-cost alternatives available currently.

No reference could be found to support the use of these soaking powders as far as being overall more effective than standard current soaking materials in non-complicated, otherwise-healthy patients.

About the ABIM Foundation

The mission of the ABIM Foundation is to advance medical professionalism to improve the health care system. We achieve this by collaborating with physicians and physician leaders, medical trainees, health care delivery systems, payers, policymakers, consumer organizations and patients to foster a shared understanding of professionalism and how they can adopt the tenets of professionalism in practice.



To learn more about the ABIM Foundation, visit www.abimfoundation.org.

About the American Podiatric Medical Association

Founded in 1912, the American Podiatric Medical Association (APMA), headquartered in Bethesda, MD, is the largest and most influential organization supporting podiatrists. As a 501(c)6 organization, APMA represents its nearly 13,000 members as the voice to legislators, regulators, and other decision makers. In addition, APMA is a primary source for education, leadership development, and collaboration for today’s podiatrist. Together with its 53 component organizations, APMA is leading the charge in advocating for the role of podiatrists and the health of their patients.



To learn more about APMA, visit www.apma.org.

For more information or to see other lists of Things Providers and Patients Should Question, visit www.choosingwisely.org.