ASK THE EXPERTS

What Are Three Keys to Meaningful Improvement in Amputation Prevention?

Panelists share necessary changes to amputation prevention, including efforts related to patient awareness, education, care models, and more.

With Naseer Ahmad, MD; Foluso Fakorede, MD; Sonya Noor, MD, FACS; and Mark J. Portou, PhD, FRCS

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1. Listen to the patient, listen to the patient, listen to the patient—they are telling you the diagnosis. As physicians, we have a paternalistic approach to patients and wonder why they simply "do not listen" to our lifestyle advice around smoking, exercise, and diet. It's the same reason doctors do not follow the same advice! Life is complicated, and we need to understand that it is not about lack of knowledge but rather about readiness to change.

2. Change needs a whole-systems approach. Amputation reduction at scale requires cooperation across the entire health economy. At a city level, an integrated approach means committed individuals looking across all assets and budgets to understand the practicalities and benefits of joining services up.

3. Don't forget the social determinants of health (SDH). Leading a healthy lifestyle is expensive, not only in monetary terms but also in terms of leaving what you have always known to be true. Therefore, a "ground-up" and "top-down" approach is needed to reduce amputations. Practically, this means working across hospitals, communities, and public health to achieve short-, medium-, and long-term reductions. All three need to happen in tandem.

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1. The Amputation Reduction and Compassion (ARC) Act. We need multisocietal support of the ARC Act (H.R.2631), introduced by Representatives Donald M. Payne Jr (D-NJ), Bobby L. Rush (D-IL), and Ruben Gallego (D-AZ). The ARC Act seeks to reduce the number of avoidable amputations undergone by patients with peripheral artery disease (PAD). The ARC Act is a historic bill destined to alter the cardiovascular health outcomes of at-risk PAD patients and address the persisting practice of PAD-related amputations.

2. Public health campaigns and education programs. Similar to the success of cancer awareness efforts by our

oncologic colleagues, we need to increase general public awareness of PAD and its disparities via national public health campaigns, celebrity messaging (eg, sports, entertainment), and society coalition building. We should promote patient-centered PAD educational programs for all populations, with an emphasis on cultural and linguistic shifts to meet these patients where they are on a community level. Lack of awareness on the multistakeholder level has a disconcerting clinical, economic, and human impact!

3. Address SDH. Understanding elusive SDH is the bedrock to which medical societies should modify care delivery models, focus research, and disseminate equal quality care. SDH should be addressed in all aspects of our curriculum training in hopes of incentivizing (via grants and scholarships) recruitment and retention of vascular, podiatric, and allied health specialists to specialty deserts! Funding for professional school loan forgiveness/repayment is necessary to bring talent to specialty deserts. A program similar to this exists for rural health facilities, but it was only developed for primary care physicians. We need a program that would be open to specialists directly involved in lowering amputation rates. These sites of service can become training grounds with clinical and research rotations available to medical students, nursing students, and medical/surgical/podiatric residents. These rotations would also serve as recruitment pools. Grant funding for these programs would be needed. There has to be buy-in by all stakeholders, including an emphasis on addressing SDH during training.

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Limb salvage and amputation prevention programs are seen commonly at larger health care systems as well as rural centers to differentiate themselves from competitors. However, it seems that amputations without appropriate management continue to happen, albeit with a lower incidence than 10 years ago. So, the question becomes: What are impactful and meaningful ways to move the dial toward less amputation and more limb salvage?

1. Early diagnosis with early screening. I believe amputations occur more now because of advanced disease at the time of diagnosis, missed diagnosis, or wrong diagnosis. To improve early diagnosis, we must educate the entire health care community that touches the "at-risk" patient. I consider smokers and those with diabetes, hypercholesterolemia, hypertension, and renal insufficiency to be at-risk patients.

As soon as at-risk patients present with claudication or a nonhealing wound, they should be screened for PAD at the first contact with a nurse or a doctor. If they don't have the hallmarks of critical limb ischemia (CLI), a questionnaire could screen patients to detect PAD. Educating the family practice, internist, cardiologist, endocrinologist, podiatrist, and wound care team—including not only the physicians but also extenders like nurse practitioners and physician assistants—to screen with an arterial Doppler may improve earlier detection of PAD. An abnormal finding should generate a vascular referral and start the treatment sooner. This could be incentivized because a simple ankle-brachial index in the clinic can be a revenue source for the medical teams and offer patients a great service that perhaps other groups in the area do not offer.

2. Patient and family ownership. Patients often don't understand the implications of PAD and the consequences of neglecting the diagnosis and appropriate management. As a community, I don't think we counsel patients and their families about smoking cessation, taking statins, or exercise. It shouldn't only be a discussion that the medical team has; all who treat these patients should be reminding them about these simple, effective therapies. I like to involve the families, whether it's the spouse, children, or grandchildren, with literature in the clinic, while in the room with the patient or in the Doppler lab. We educate and empower all our staff to have these sometimes-difficult conversations with our patients, frankly, before it's too late.

3. Make access to care easy. These are difficult scenarios, and they often include transport, insurance, and support challenges. A dedicated phone line for referring physicians would allow them to get an earlier appointment or Doppler screening. A dedicated process for triaging CLI patients so they can be seen in 24 to 48 hours allows earlier diagnosis and care, which can be an edge for multiple groups competing for the same patient.

A practice with a process that allows these patients to be treated at different sites of service, such as an office-based lab, ambulatory surgery center, or hospital, that is appropriate for the patient will allow for earlier treatment for these CLI patients who are often very time-sensitive to prevent further tissue loss or even limb loss.

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1. System/pathway-based needs. Patients need to be seen by expert teams much earlier in the stage of developing ulceration. I would advocate for empowering patients to self-refer or request referral from their primary care physicians to rapid access clinics. Likewise, we need wider recognition from secondary care teams of the benefits of treating these patients, whether diabetic foot–related or CLI, aggressively and early to prevent loss of function and worse disability.

2. Medical therapy–based needs. We need to better recognize the proinflammatory and multisystemic nature of diabetes. The link between diabetes and excess cardiovascular mortality is well established. Chasing and measuring glycemic control as the indictor of diabetic medical optimization is completely inadequate in my opinion. An urgent mindset change moving toward aggressive management of cardiovascular risk, such as use of high-dose statins, antiplatelet/direct oral anticoagulant combinations, and glucagon-like peptide-1 agonists, is required by those routinely treating CLI diabetic patients.

3. Surgical therapy–based needs. Although not a patient education or awareness need, as a below-the-knee interventionalist, I feel a big gap in the technology we have available as a solution for treating the anterior tibial origin. I still find this the most unsatisfactory territory to manage. I hope that data will emerge soon to direct us in this area. Drug-coated balloons are one possibility, but I'm holding out for a customizable stent solution for the below-the-knee trifurcation! ■