

## Peripheral Vascular Intervention & Amputation Prevention

In the past decade, the global prevalence of Peripheral Artery Disease (PAD) increased by 24%, from 164 million to 202 million individuals<sup>i</sup>, punctuating the need for increased intervention to properly treat PAD to halt progression of the disease. If untreated, PAD can lead to critical limb ischemia (CLI), a condition frequently associated with lower limb amputations.

Data suggest that the increased use of vascular care procedures can be associated with lower rates of amputations. A recent study of more than 1 million Medicare patients with CLI found that proper intervention reduced the odds of amputation by 90%.<sup>ii</sup>

Increased access to interventions – including revascularization and atherectomy – in the community setting has resulted in a reduction of lower extremity amputations for people with severe lower extremity PAD in the United States.

### Positive U.S. Trends in Limb Preservation

From 1996 – 2011, the rate of lower limb amputations among Medicare patients in the US decreased by 45%.<sup>iii</sup>

- 48% decrease in the rate of above-knee amputations
- 39% decrease in the rate of below knee amputations

During that same time period, the use of vascular procedures to limit amputations also increased significantly – specifically among diabetic patients who are at high risk for PAD.

### Limb Preservation Leads to Long-Term Savings

Lower incidence of extremity amputations through clinically appropriate intervention has significant ability to reduce healthcare spending, particularly Medicare expenditures.

Major amputation is costly, ranking as the sixth most expensive surgical procedure in the U.S. The macroeconomic cost of amputation is estimated – at a minimum – at **\$10.6 billion annually**.<sup>iv</sup>

- Medicare is the largest payer of major amputations in the U.S., paying for 66% of procedures in 2010.<sup>v</sup>

<sup>i</sup> Fowkes, Gerald, The Lancet, "Comparison global estimates of prevalence and risk factors for peripheral artery disease in 2000 and 2010: a systematic review and analysis." August 2013.

<sup>ii</sup> Yost, Mary. Cost-Benefit Analysis of Critical Limb Ischemia in the Era of the ACA, May 2014.

<sup>iii</sup> JAMA Surgery, Fifteen-Year Trends in Lower Limb Amputation, Revascularization, and Preventative Measures Among Medicare Patients, January 2015.

<sup>iv</sup> Yost, Mary. Cost-Benefit Analysis of Critical Limb Ischemia in the Era of the ACA, May 2014.

<sup>v</sup> Yost ML. The economic cost of dysvascular amputation. Atlanta (GA): The Sage Group. In press.

<sup>vi</sup> Yost, Mary. Cost-Benefit Analysis of Critical Limb Ischemia in the Era of the ACA, May 2014.

<sup>vii</sup> Ibid.

## Limb Preservation Preserves Patient Quality of Life

Interventions that ultimately result in limb preservation, most importantly, offer the best possible clinical outcome. When comparing patient amputees vs. those whose limbs were preserved, data show intervention produces positive results:

<b>LIMB PRESERVATION</b> <i>via revascularization<sup>vi</sup></i>	<b>AMPUTATION</b>
The 2-year mortality rate is 16% to 24%	The one-year mortality rate is 48% and 3-year mortality rate is 71% <sup>vii</sup>
Almost two-thirds of patients are routinely discharged home	Only 18% to 24% of patients are routinely discharged home <sup>viii</sup>
Less than 20% of patients are discharged to a nursing home	A majority of patients (70%) go to another institution (a nursing home, rehabilitation facility) <sup>ix</sup>
At 2 years, 80% are walking and almost 90% are living independently	Sixty percent to 80% are unable to walk again <sup>x</sup>
Data suggest patients who experience limb preservation have higher quality of life	One-third or more of patients experience depression, and in some, severe depression <sup>xi</sup>

<sup>i</sup> Fowkes, Gerald, The Lancet, "Comparison global estimates of prevalence and risk factors for peripheral artery disease in 2000 and 2010: a systematic review and analysis." August 2013.

<sup>ii</sup> Ibid.

<sup>iii</sup> JAMA Surgery, Fifteen-Year Trends in Lower Limb Amputation, Revascularization, and Preventative Measures Among Medicare Patients, January 2015.

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<sup>vi</sup> Yost, Mary. Cost-Benefit Analysis of Critical Limb Ischemia in the Era of the ACA, May 2014.

<sup>vii</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4107174/>

<sup>viii</sup> Yost, Mary. Cost-Benefit Analysis of Critical Limb Ischemia in the Era of the ACA, May 2014.

<sup>ix</sup> Ibid.

<sup>x</sup> Ibid.

<sup>xi</sup> Ibid.