

An Endo First Approach Is Best For Treating CLTI In Almost All Patients: The Role For Open Bypasses Is (Very) Limited: Why BEST-CLI And BASIL 2 Have Not Changed My Practice


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Disclosures

- None

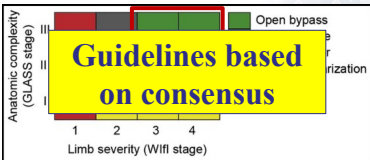


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Global Limb Anatomic Staging System (GLASS)

CLINICAL PRACTICE GUIDELINE DOCUMENT

Global vascular guidelines on the management of **chronic limb-threatening ischemia**



Conte MS, et al. Eur J Vasc Endovasc Surg. 2019 Jul;58(1S):S1-S109.

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Randomized Trials



ORIGINAL ARTICLE

Surgery or Endovascular Therapy for Chronic Limb-Threatening Ischemia

A. Farber, M.T. Menard, M.S. Conte, J.A. Kaufman, R.J. Powell, N.K. Choudhry, T.H. Henria, S.F. Assmann, M.A. Creager, M.J. Conroy, M.D. Dale, M.R. Jullé, D. Reid, F.S. Stans, C. Soper, C.J. White, M. van Chen, M.B. Strong, M.F. Williams, M. McKean, E. Azene, A. Azabal, A. Barleben, D.K. Chew, L.C. Clancy, Y. Douville, L. Fendens, M. Garg, W. Gasper, S.A. Giles, P.P. Goodney, B.M. Hawkins, C.R. Herman, J.A. Kalish, M.C. Koopmans, J.A. Lastawski, C. Mena-Hurtado, R. Motaganahalli, V.L. Rowe, A. Schanzer, P.A. Schneider, J.J. Sircace, M. Venermo, and K. Rosenfeld, for the BEST-CLI Investigators



THE LANCET


A vein bypass first versus a best endovascular treatment first revascularisation strategy for patients with chronic limb threatening ischaemia who required an infra-popliteal, with or without an additional more proximal infra-inguinal revascularisation procedure to restore limb perfusion (BASIL-2): an open-label, randomised, multicentre, phase 3 trial



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BEST-CLI Outcomes

- Infringuinal revasc
- Primary outcome:
 - MALE or death
 - Median f/u 2.7y
- Cohort 1: ssGSV
 - 1st outcome: 42.6% open vs. 57.4% endo
 - Open: 32% fewer first reinterventions
 - Open: 25% reduction in major amp
- Cohort 2: Alternative conduit
 - No differences



No. at Risk	0	1	2	3	4	5
Endovascular Therapy	734	624	504	375	282	14
Surgery	734	483	349	224	117	52

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BEST-CLI Criticisms

- Major reinterventions
 - Driven by early failures
 - 15% endo vs. 2% open
 - Significantly higher than ~5% in general practice
 - Sensitivity analysis with similar findings to entire group
 - Many early failures went on to cross over
- Low rate of drug-eluting technology (<50%)
- Lack of anatomic data
- Randomization based on investigator deciding equipoise between open and endo
 - Excluded patients?

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Endo First? Patency

Long-term Outcomes of an Endovascular-First Approach for Diabetic Patients With Predominantly Tibial Disease Treated in a Multidisciplinary Setting

*Caifan W. Hicks,^{1,2} Joseph K. Cammer,¹ Ying W. Lum,¹ James H. Black III,¹ and Christopher J. Abularrar,^{1,2} Baltimore, Maryland
Ann Vasc Surg 2019; e6: 117-126*

A Primary Patency

Number at risk:
Endovascular: 142
Open Vascular: 53

B Secondary Patency

Number at risk:
Endovascular: 142
Open Vascular: 53

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Endo First? Amputation Free Survival

Long-term Outcomes of an Endovascular-First Approach for Diabetic Patients With Predominantly Tibial Disease Treated in a Multidisciplinary Setting

*Caifan W. Hicks,^{1,2} Joseph K. Cammer,¹ Ying W. Lum,¹ James H. Black III,¹ and Christopher J. Abularrar,^{1,2} Baltimore, Maryland
Ann Vasc Surg 2019; e6: 117-126*

C Amputation Free Survival

Number at risk:
Endovascular: 142
Open Vascular: 53

4 year LS
endo 92% vs.
open 92%,
P=.99

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Real World Practice UCSF

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Real World Practice UCSF

Limb-based patency as a measure of effective revascularization for chronic limb-threatening ischemia

Rym El Khoury, MD,¹ Brian Wu, MD,¹ Sophie A. Kupiec-Weglinski, MS,¹ Iris H. Liu, MD,¹ Caizhou T. Edwards, MD,¹ Eyal Shalita, MD,¹ Michael S. Conte, MD,¹ Jade S. Hiramoto, MD,¹ Shant M. Vartanian, MD,¹ Peter A. Schneider, MD,¹ and Michael S. Conte, MD,¹ San Francisco, CA

- UCSF single-center series
 - 184 limbs in 163 patients
 - Primary outcomes
 - » Limb Based Patency
 - » MALE
- Open bypass 33%
- ENDO 67%

J Vasc Surg. 2022;76(4):997-1005.

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Real World Practice UCSF

Relevance of BEST-CLI trial endpoints in a tertiary care limb preservation program

Iris H. Liu, MD, Rym El Khoury, MD, Jade S. Hiramoto, MD, MAS, Warren J. Casper, MD, Peter A. Schneider, MD, Shant M. Vartanian, MD, and Michael S. Conte, MD,¹ San Francisco, California

- UCSF single-center series
 - MALE or Major Amp
- Autogenous vein bypass 30%
- Non-autogenous vein 13%
- ENDO 57%

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J Vasc Surg. 2024 Jun.

Global Limb Anatomic Staging System (GLASS)

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Global vascular guidelines on the management of chronic limb-threatening ischemia

Michael S. Conte, MD (Co-Editor), Andrew W. Bradbury, MD (Co-Editor), Philippe Kahn, MD (Co-Editor), John A. White, MD (Steering Committee), Steven Dick, MD (Steering Committee), Robert Fradette, MBBCh (Steering Committee), Joseph L. Mills, MD (Steering Committee), Jean-Benoit Ricco, MD (Steering Committee), Pauline M. Sacco, MD (Steering Committee), M. Hassan Murad, MD, MPH, and the CLIC Writing Group. San Francisco: Global Limb-Anatomy, Lower-Extremity Vascular Disease, 2024. All 24 Content Sections Available. San Francisco: Elsevier, 2024. 100 pages. ISBN: 978-0-323-98888-8.

Date guidelines of the Society for Vascular Surgery, European Society for Vascular Surgery, and World Federation of Vascular Societies.

Anatomic complexity (GLASS stage)	III					Open bypass Indeterminate Endovascular No revascularization
	II					
	I					
	0					
		1	2	3	4	
		Limb severity (WIfI stage)				

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Michael S. Conte, MD (Co-Editor); Andrew W. Bradbury, MD (Co-Editor); Philippe Huels, MD (Co-Editor); John A. Harris, MD (Writing Committee); Hassan Dakr, MD (Writing Committee); Robert Frerking, MEd; Giovanni Corvetti, Joseph L. Mills, MD (Writing Committee); Juan Bujarral, MD (Writing Committee); Pauline B. Quance, MD (Writing Committee); M. Hassan Mujumdar, MD, MEd, and the CLIC Writing Group; dan-franklin, call-jamrighan, linden-rogers, blair-rogers, mick, & st-cabin (lecturers); Andrew South, American Association for Vascular Surgery; European Society for Vascular Surgery; and World Federation of Vascular Societies

Anatomic complexity (GLASS stage)	III	Red	Grey	Grey	Green	
	II	Yellow	Grey	Grey	Green	
	I	Red	Yellow	Yellow	Yellow	
		1	2	3	4	
		Limb severity (Wiffl stage)				

■ Open bypass
■ Indeterminate
■ Endovascular
■ No revascularization

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Conclusions

- BEST-CLI and BASIL-2 had many differences
 - Treatment options should be based on which trial was most similar to your patient population
- Success of a vascular intervention depends on the improvement in perfusion not the technique
- Using an endovascular first strategy can accomplish your goals but should not delay sufficient perfusion nor change bypass anatomy
- Bypasses are an integral part of any limb preservation program and should be utilized when appropriate

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