

# IS STENTING OF THE FEMORAL ARTERY AS GOOD AS BYPASS SURGERY?

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# Disclosure

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Speaker name: Jonas Eiberg

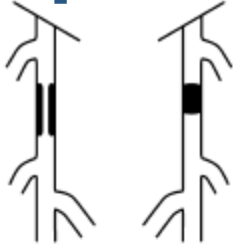
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I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)
- I do not have any potential conflict of interest

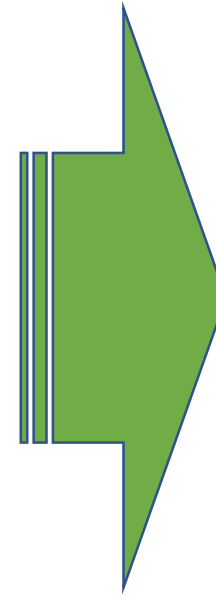
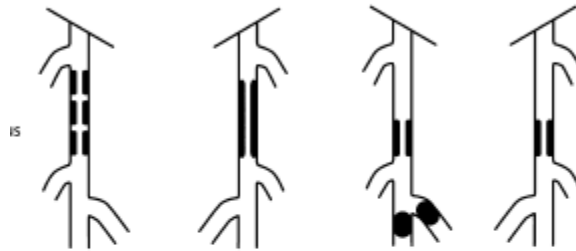
# Research question

A



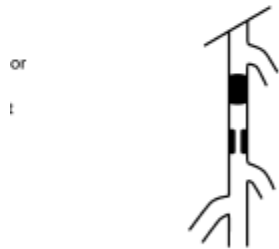
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B



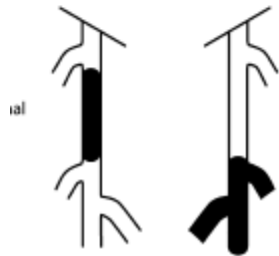
**???**

C

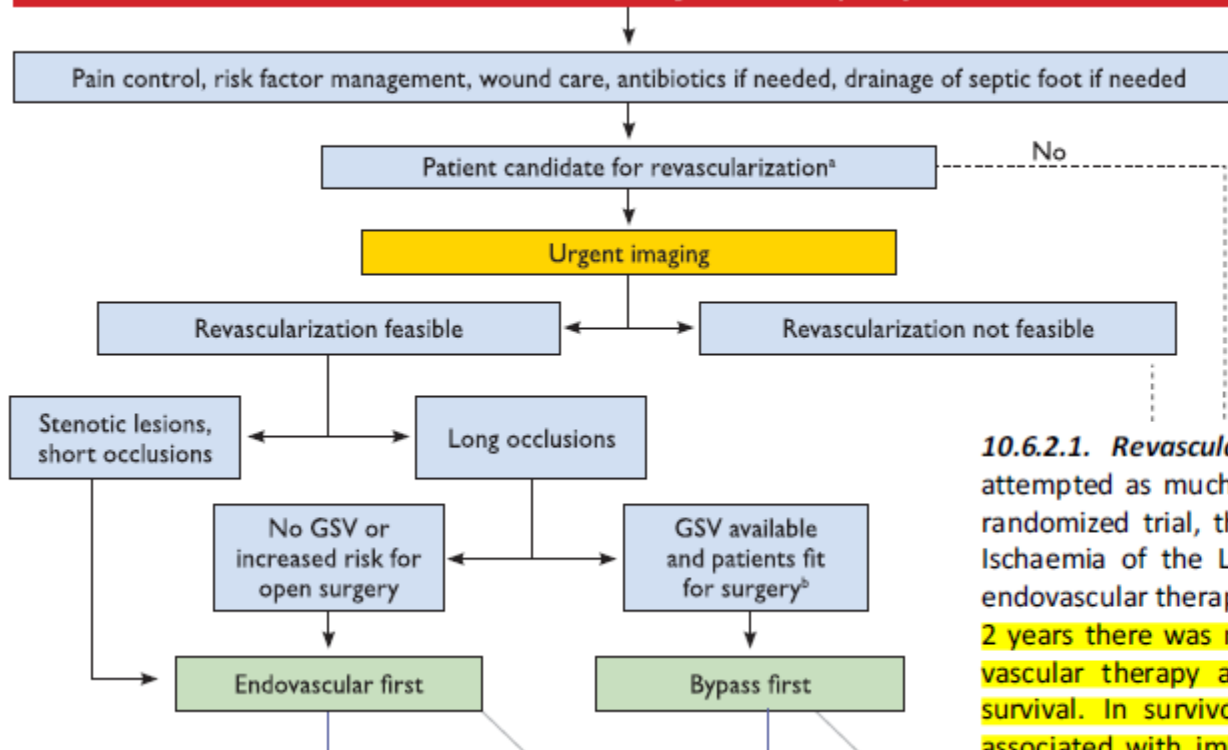


**BYPASS**

D



## Chronic limb-threatening ischaemia (CLTI)



Eur J Vasc Endovasc Surg (2018) 55, 305–368

### Editor's Choice — 2017 ESC Guidelines on the Diagnosis and Treatment of Peripheral Arterial Diseases, in collaboration with the European Society for Vascular Surgery (ESVS)

Document covering atherosclerotic disease of extracranial carotid and vertebral, mesenteric, renal, upper and lower extremity arteries

Endorsed by: the European Stroke Organization (ESO)

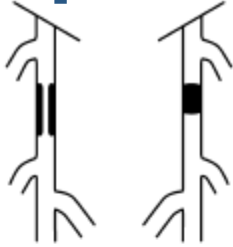
The Task Force for the Diagnosis and Treatment of Peripheral Arterial Diseases of the European Society of Cardiology (ESC) and of the European Society for Vascular Surgery (ESVS)

Victor Aboyans <sup>a,\*</sup>, Jean-Baptiste Ricco <sup>a,\*</sup>, Marie-Louise E.L. Bartelink <sup>a</sup>, Martin Björck <sup>a</sup>, Marianne Brodmann <sup>a</sup>, Tina Cohnert <sup>a</sup>, Jean-Philippe Collet <sup>a</sup>, Martin Czerny <sup>a</sup>, Marco De Carlo <sup>a</sup>, Sebastian Debus <sup>a</sup>, Christine Espinola-Klein <sup>a</sup>, Thomas Kahan <sup>a</sup>, Serge Kownator <sup>a</sup>, Lucia Mazzolai <sup>a</sup>, A. Ross Naylor <sup>a</sup>, Marco Roffi <sup>a</sup>, Joachim Röther <sup>a</sup>, Muriel Sprynger <sup>a</sup>, Michal Tendera <sup>a</sup>, Gunnar Tepe <sup>a</sup>, Maarit Venermo <sup>a</sup>, Charalambos Vlachopoulos <sup>a</sup>, Ileana Desormais <sup>a</sup>

**10.6.2.1. Revascularization.** Revascularization should be attempted as much as possible.<sup>246,320–322</sup> So far, only one randomized trial, the Bypass versus Angioplasty in Severe Ischaemia of the Leg (BASIL) trial, has directly compared endovascular therapy to open surgery in CLTI patients.<sup>323</sup> **At 2 years there was no significant difference between endovascular therapy and surgery regarding amputation-free survival. In survivors after 2 years, bypass surgery was associated with improved survival (on average 7 months,  $P = 0.02$ ) and amputation-free survival (6 months,  $P = 0.06$ ).**<sup>314</sup> These data are challenged by more recent endovascular therapy techniques. So far, drug-eluting bal-

# Research question

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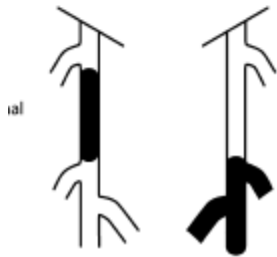
**ENDO**

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**BYPASS**

# Method

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- 2011-2015 (5y)
- Danish Vascular Registry + Death registry
- Patient records and PACS

## INCLUSION

- Critical ischemia (Fontaine 3+4)
- Femoropopliteal lesions
- Revascularization of SFA with PTA or Bypass surgery

## EXCLUSION

- Bilateral treatment
- Lost to follow up
- Adjunctive treatment, other than central and periferal PTA, and CFA TEA

# Limitations

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- Patient records and PACS was retrospectively reviewed
- Bias – unfit for surgery referred for PTA?
- Cohort size - legal (5y), no power analysis
- Follow-up – no systematic US surveillance of PTA in Cph
- 18% had endo without stenting

# End Points

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Amputation free  
survival



All-cause  
mortality

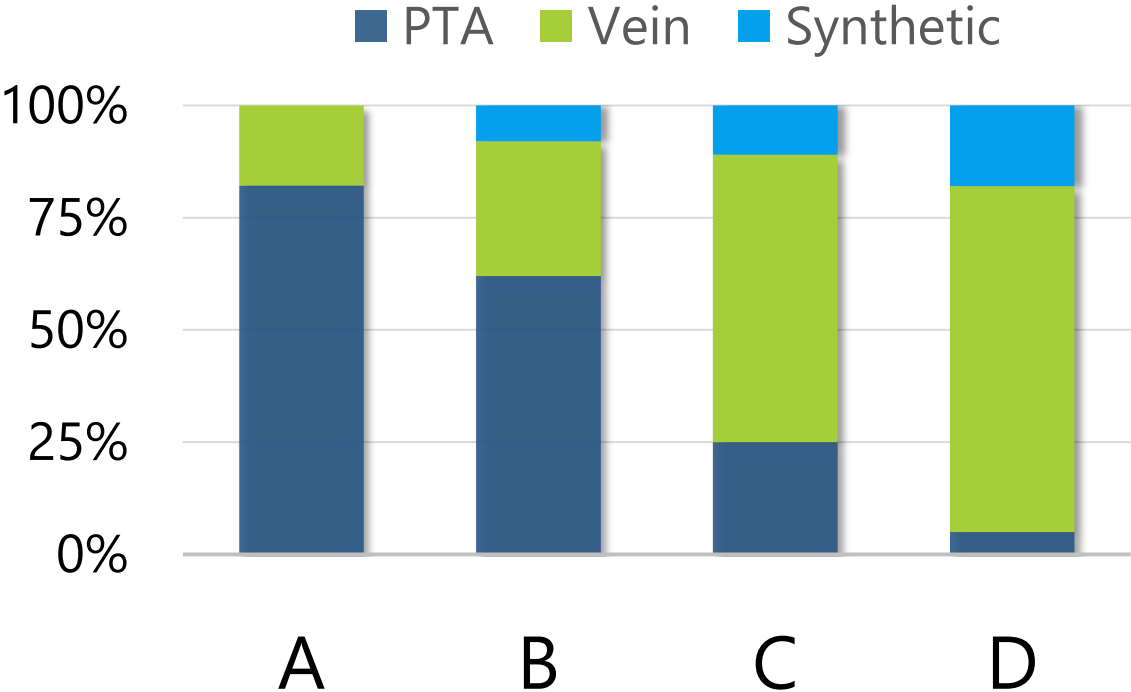


# RESULTS- Baseline

	PTA	Vein	Synthetic	P
Number treated, n	239	357	76	
Demography	In total 672 patient			
Sex, man	55%	66%	61%	0.023
Age, mean (95% CI)	74 (73-76)	70 (69-71)	73 (70-76)	

# RESULTS- Baseline

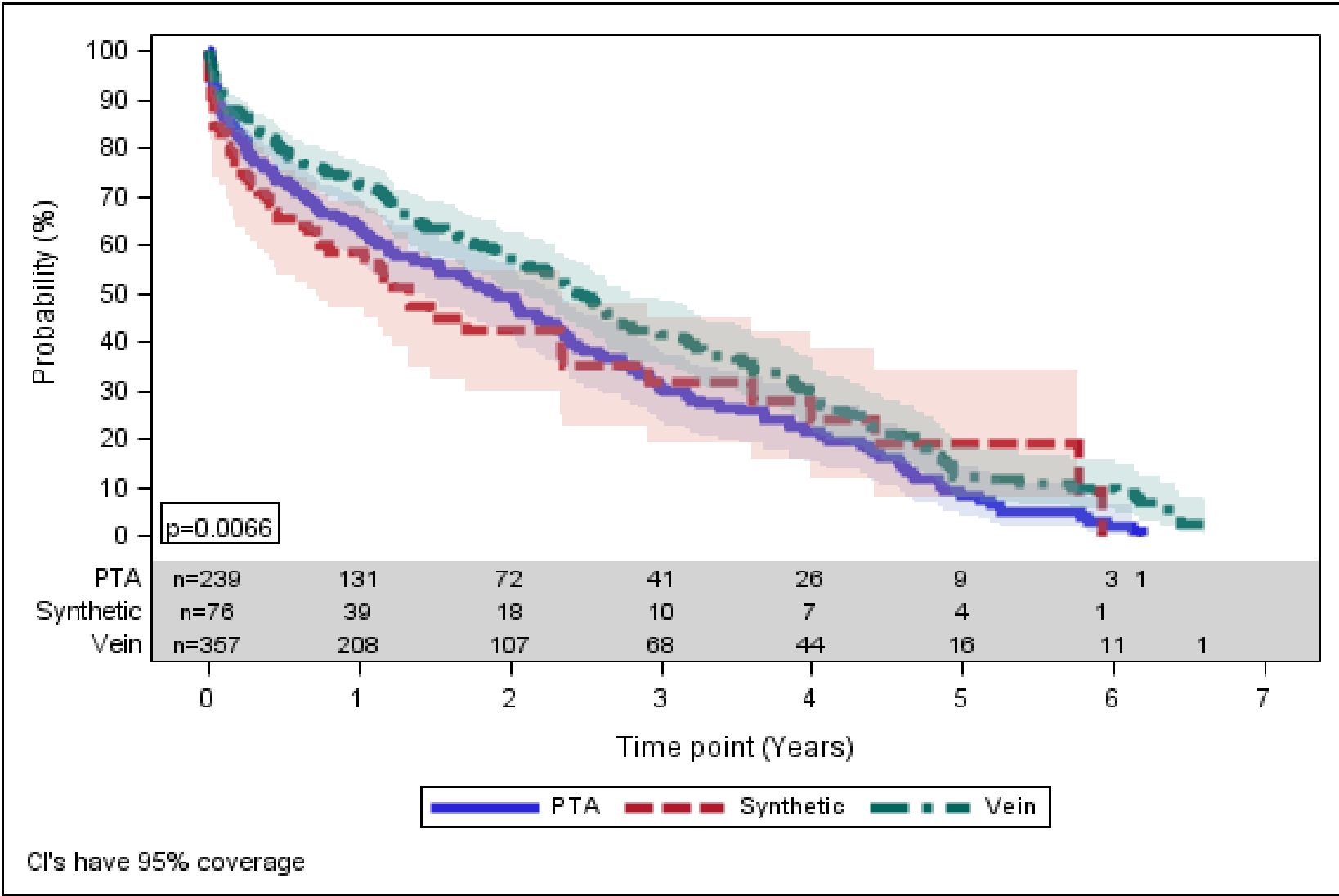
**TASC II**



**Runoff**

	PTA	Vein	Synthetic
0	13% (31)	14% (52)	5% (4)
1	40% (96)	38% (139)	53% (40)
2	33% (79)	31% (114)	32% (24)
3	13% (32)	16% (57)	9% (7)

# Amputation Free Survival



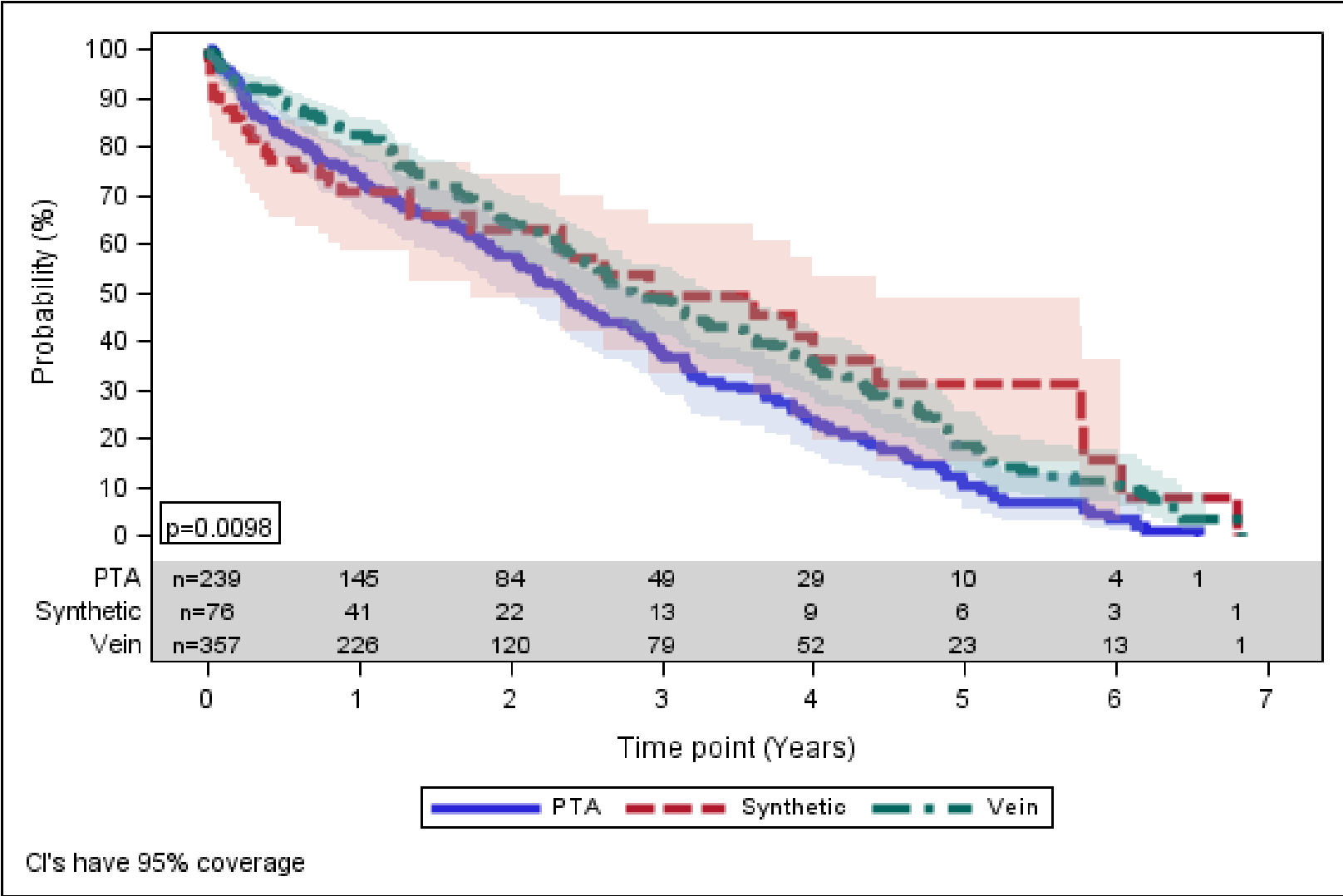
# Risc Of Amp. Or Death, Hazard Ratio

	HR, Un-adjusted	HR, Adjusted for co-morb	HR, Adjusted for co-morb and TASC
PTA vs. Vein	1.36 (p=0.004)	1.29 (p=0.019)	1.56 (p=0.001)
Synthetic vs. Vein	1.40 (p=.004)	1.26 (p=0.204)	1.25 (p=0.211)
Synthetic vs. PTA	1.03 (p=.865)	0.98 (p=0.895)	0.80 (p=0.277)

# Co-morb. And Risc Of Amp Or Death

	Hazard Ratio	P
Low renal function	1.39	0.005
Congestive heartfailure	1.55	0.001
Atrial fibrillation	1.33	0.025
Ischemic heart disease	1.02	0.858
Stroke	1.10	0.484
Hypertension	1.19	0.115
Diabetes	1.10	0.364
Lung disease	1.11	0.437
Smoking	1.04	0.682
Alcohol, above recom.	1.10	0.449
TASC II, B	1.19	0.408
TASC II, C	1.30	0.238
TASC II, D	1.81	0.015
No Run-off	1.37	0.034

# Freedom from mortality



# Conclusion

- 01** 30% - 50% higher risk of amputation or death in the PTA group, compared to vein bypass.
- 02** Increased length of hospital stay and more wound complications in bypass group
- 03** Severity of lesion (TASC) is an important cofactor
- 04** Overall mortality is high in all groups.