

# Current challenges in the treatment of chronic limb threatening ischaemia

Citation for published version (APA):

Wübbecke, L. F. (2022). *Current challenges in the treatment of chronic limb threatening ischaemia*. [Doctoral Thesis, Maastricht University]. Gildeprint Drukkerijen. <https://doi.org/10.26481/dis.20220408lw>

## Document status and date:

Published: 01/01/2022

## DOI:

[10.26481/dis.20220408lw](https://doi.org/10.26481/dis.20220408lw)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.



## Impact paragraph



Nowadays, awareness of the impact of performed academic research not only within science, but also on the society, is of increasing importance. This addendum is intended to address the societal and economical relevance of the research performed during this PhD-project.

This thesis addresses two important challenges in the treatment of patients suffering from Chronic Limb Threatening Ischaemia (CLTI): revascularization of octogenarians and surgical site infection as complication after revascularization. Research on both topics is relevant for our society for various reasons.

As already highlighted in the introduction of this thesis, there is an increasing number of octogenarians suffering from CLTI. Due to the overall aging of our society and increased life expectancies, the financial load on our health care system is constantly increasing. Treatment of CLTI is known to be an expensive therapy and especially in a frail patient group as octogenarians with potentially limited benefit from revascularisation, cost-effectiveness becomes a topic of discussion.<sup>1,2</sup> The results of this thesis showed that the 1-year mortality rate after revascularization is extremely high in octogenarians, making this question even more important. Should we revascularize all octogenarians? The predictive risk factors described in this thesis can facilitate the decision-making in vascular surgery, resulting in safer and more efficient treatment and adequate patient selection. Avoiding costly inefficient operations can not only reduce health care costs with positive impact on the economy. It also saves patients from inefficient and therefore unnecessary operations with positive impact on the well-being of the patient itself. All patients with CLTI should be afforded best medical care, but in octogenarians surgery might not lead automatically to the best clinical outcome, especially when talking about quality of life.

Reducing health care costs is also a major benefit from prevention and optimal treatment of surgical site infections after revascularization. Avoiding costly re-operations, re-admissions and longer hospital stays due to deep groin infections should be aimed and the results of the studies presented in this thesis contribute to this aim.

As already implied, the results of this thesis are not only of interest for medical specialists and the economic health care sector, but for the patient and its well-being as well. We aim to avoid

inefficient operations in a frail group of elderly patients. The results of most recent studies, including ours, focus on objective outcome measurements such as mortality and limb salvage. We support however the increasing awareness to the fact that quality of life and pain relief should be the major therapeutic goals in this group of patients. Available data on these outcomes are very scarce and should be the focus of further research. Until results of this future research are available, we showed that an individual decision-making with every single patient, especially octogenarian, is needed. Patients have to be informed adequately as part of shared-decision-making and they have to decide what is important for their own quality of life.

#### **REFERENCES**

1. Barshes NR, Belkin M; MOVIE Study Collaborators. A framework for the evaluation of "value" and cost-effectiveness in the management of critical limb ischemia. *J Am Coll Surg.* 2011 Oct;213(4):552-66.e5.
2. Peters CML, de Vries J, Redeker S, et al. Cost-effectiveness of the treatments for critical limb ischemia in the elderly population. *J Vasc Surg.* 2019 Aug;70(2):530-538.e1.