

## Module Specification

### Module Summary Information

<b>1</b>	<b>Module Title</b>	Principles of limb salvage
<b>2</b>	<b>Module Credits</b>	20
<b>3</b>	<b>Module Level</b>	7
<b>4</b>	<b>Module Code</b>	LBR7663
<b>5</b>	<b>Semester Taught</b>	1 or 2

<b>6</b>	<b>Module Overview</b>
<p>This module will include all aspects of lower limb surgical practice in peripheral vascular surgery, which encompasses both arterial, venous and lymphatic diseases, and is designed to enhance knowledge and practical skills in this specialist surgical field and to enable students to achieve enhanced clinical competencies.</p> <p>This module will provide students with advanced theoretical knowledge of the surgical strategies that are applied in peripheral vascular disease and limb salvage. It has been designed in collaboration with clinical colleagues and blends theoretical approaches with the opportunities of emerging evidence, service development and cutting-edge care surgical approaches.</p> <p>It will develop and build on core generic skills of surgical care, whilst concentrating on specialist aspects of surgery, clinical examination, inpatient and outpatient-based patient care and will enable students working in various aspects of peripheral vascular medicine to develop their knowledge and critical analytical skills. Students will understand, review and apply theories of clinical innovation, service improvement and change into their surgical practice. Critical analysis of evidence and exploration of different methods of limb salvage while drawing on key learning from research and literature, facilitate consideration and application in clinical practice.</p> <p>Consideration of infection control, revascularisation, amputation, psychological and emotional support, wound management including off loading and pain management is applied to the human experience of limb salvage. Maximisation of the physical and functional status, alongside nutrition and the potential for successful limb preservation are also critically examined.</p> <p>The module will be delivered online through interactive online learning opportunities and will encourage the critical examination of practices within the context of the legislative and professional frameworks of their own country, with access to a wide range of resources including taught presentations, interactive webinars, videos and URL links.</p> <p>Students will be encouraged to share practical experiences in small group work, as well as engaging in both directed and self-directed learning activities. They will be encouraged to be an active partner in their own learning and development and will receive regular feedback and feedforward aimed at developing their academic skills in consultation with the module teaching team.</p>	

<b>7</b>	<b>Indicative Content</b>
<ul style="list-style-type: none"> <li>• History taking, arterial and venous disease relevant to intervention including deep vein thrombosis, claudication, rest pain and tissue loss</li> <li>• Clinical examination: clinical assessment of tissue loss and use of scoring systems for wounds</li> <li>• Best medical treatment including conservative treatment, medications, smoking cessation, exercise program</li> <li>• Strategies for treatment; including wound care, nutrition, co-morbidity, risk factor management and infection</li> </ul>	

- Assessment of patient fitness for intervention
- Revascularisation; including minimal (angioplasty) and maximally (bypass) invasive options for arterial ulcers
- Endo-venous management; including varicose vein surgery and compression in venous leg ulcers
- Recognition of uncommon causes of leg ulcers
- The foot in diabetes; including podiatry, off-loading and footwear
- Amputation
- Rehabilitation

<b>8</b>		<b>Module Learning Outcomes</b>	
<b>On successful completion of the module, students will be able to:</b>			
	<b>1</b>		Critically apply and synthesise knowledge and awareness of key attributes of research and new emerging evidence and technology in limb salvage approaches in people with peripheral vascular disease.
	<b>2</b>		Critically analyse current clinical practice approaches in order to develop and deliver safe, effective and efficient individualised management of limb salvage in people with peripheral vascular disease.
	<b>3</b>		Critically reflect on competency and innovation in limb salvage, building on existing knowledge and clinical skills development.
	<b>4</b>		Critically review interdisciplinary, practice-led excellence in limb salvage procedures for practitioners nationally and internationally.

<b>9</b>		<b>Module Assessment</b>		
<b>Learning Outcome Number (from table 8)</b>	<b>Coursework</b>	<b>Exam</b>	<b>In-Person</b>	
<b>1, 2</b>	<b>Assignment (70%)</b>			
<b>3, 4</b>			<b>Presentation (30%)</b>	

10 Breakdown Learning and Teaching Activities		
Learning Activities	Hours	Details of Duration, Frequency and other comments
<b>Scheduled Learning (SL)</b> includes lectures, practical classes and workshops as specified in timetable	20	10x 1 hour live or pre-recorded remote lectures 4x1 hour group tutorials/ workshops 3x 1 hour live webinars 3x 1 hour practical demonstrations
<b>Directed Learning (DL)</b> includes placements, work-based learning, peer group learning external visits, on-line activity, Graduate+, peer learning, as directed on VLE	100	Moodle activities, practice-based learning, case histories, discussion groups, reading, literature searching, critique of articles, presentations
<b>Private Study (PS)</b> includes preparation for exams	80	Reading, 1:1 tutorials, preparation for assessments, student group activity, project progression activities
<b>Total Study Hours:</b>	200 hours	

11 Key Texts and Online Learning Resources	
<p>You will be introduced to the Virtual Learning Environment (VLE) and be expected to engage with materials throughout this online module. The module has a reading list online. This which will be a comprehensive and continually updated resource of a variety of sources of literature and information that will support learning and achievement of learning outcomes. You may also have access to your workplace library and resources.</p> <p>Below is a sample that will support your learning:</p> <p><b>Books:</b></p> <p>Cronenwett, J. L. and Johnston, W. (2014) <i>Rutherford's Vascular Surgery</i> (E-Book), 8th Edition</p> <p>Edmonds, M. E. &amp; Sumpio, B. E. (2019) <i>Limb Salvage of the Diabetic Foot: An Interdisciplinary Approach</i>. Cham: Springer International Publishing AG.</p> <p>Haimovici's Vascular Surgery, (2012) 6th Edition. Print ISBN:9781444330717  Online ISBN:9781118481370  DOI:10.1002/9781118481370. Copyright © 2012 Blackwell Publishing Ltd</p> <p>Kumar, A. &amp; Ouriel, K. (2013) <i>Handbook of endovascular interventions</i>. New York: Springer.</p> <p>Owens, C. D. &amp; Yeghiazarians, Y. (2012) <i>Handbook of endovascular peripheral interventions</i>. New York: Springer.</p> <p>Sidawy, A. and Perler, B. (2018) <i>Rutherford's Vascular Surgery and Endovascular Therapy, 2-Volume Set 9th Edition</i> Elsevier Hardcover ISBN: 9780323427913. eBook ISBN: 9780323581301</p> <p><b>Journals:</b></p>	

- European Journal of Vascular and Endovascular Surgery
- Journal of Vascular Surgery
- The Diabetic Foot Journal

for students wishing to deepen their study beyond the basic requirements.

Debridement: <https://www.independentnurse.co.uk/clinical-article/a-guide-to-wound-debridement/114500/>

EWMA Debridement Guidelines:

[https://ewma.org/fileadmin/user\\_upload/EWMA.org/Project\\_Portfolio/EWMA\\_Documents/EWMA\\_Debridement\\_Document\\_JWCfinal.pdf](https://ewma.org/fileadmin/user_upload/EWMA.org/Project_Portfolio/EWMA_Documents/EWMA_Debridement_Document_JWCfinal.pdf)

Hurst J, Gibson L, Barn R, Wylie D, Kennon B, Bus S, Woodburn J. (2019) Data linkage and geospatial mapping exposes inequalities in outcomes for diabetic foot disease. *Glasgow Diabetic Foot Study Group of the EASD, 15th Scientific Meeting*. Accessed: 20 November 2019

[https://dfsg.org/fileadmin/user\\_upload/DFSG/DFSG\\_2018\\_programme\\_book\\_final\\_compressed.pdf](https://dfsg.org/fileadmin/user_upload/DFSG/DFSG_2018_programme_book_final_compressed.pdf)

Prompers L, Huijberts M, Apelqvist J, Jude E, Piaggese A, Bakker K, Edmonds M, Holstein P, Jirkovska A, Mauricio D, Ragnarson Tennvall G, Reike H, Spraul M, Uccioli L, Urbancic V, Van Acker K, van Baal J, van Merode F, Schaper N. (2007) High prevalence of ischaemia, infection and serious comorbidity in patients with diabetic foot disease in Europe. Baseline results from the Eurodiale study. *Diabetologia*. 50(1):18-25. <https://www.ncbi.nlm.nih.gov/pubmed/17093942>

Paisey RB, Abbott A, Levenson R et al. (2018) Diabetes-related major lower limb amputation incidence is strongly related to diabetic foot service provision and improves with enhancement of services: peer review of the South-West of England. *Diabet Med*. 35(1):53-62

Rayman, G. Kar, P (2020) Diabetes: GIRFT Programme National Specialty Report Professors

The Society for Vascular Surgery Valuation Work Group Publishes New Report Highlighting the Value of Vascular Surgeons to the Health Care System [https://www.jvascsurg.org/article/S0741-5214\(20\)31315-X/fulltext](https://www.jvascsurg.org/article/S0741-5214(20)31315-X/fulltext)