

## Module Specification

### Module Summary Information

<b>1</b>	<b>Module Title</b>	Assessment and management of peripheral vascular disease
<b>2</b>	<b>Module Credits</b>	20
<b>3</b>	<b>Module Level</b>	7
<b>4</b>	<b>Module Code</b>	LBR7660
<b>5</b>	<b>Semester Taught</b>	1

<b>6</b>	<b>Module Overview</b>
<p>The module is designed for clinicians with experience in the assessment and management of the patient with lower limb peripheral vascular disease, which encompasses both arterial, venous and lymphatic diseases. Students will critically explore and analyse existing and developing theories and concepts that underpin the assessment and management of peripheral vascular disease including arterial and venous pathology, thus facilitating both professional and personal growth and enhancing patient care.</p> <p>This module will provide students with advancing theories for the assessment and management of people with peripheral arterial and venous disorders that affect the lower limb. There will be a strong focus on relevance to practice, practice planning and development, leadership, and transformation. It will blend theoretical approaches with the challenges of up-to-date care and surgical approaches with a focus on patient education, policy and person-centred care delivery throughout the module.</p> <p>Students will explore and recognise the potential for practice-led care and extend and enhance their employability and career progression by identifying ways in which they can develop their services by utilising modern technology and diagnostics. Enabling innovation of new models of interdisciplinary practice and indications for surgical intervention as well as evaluating both endovascular (minimally invasive) and open surgical techniques to manage these patients.</p> <p>The module will build upon previous educational and clinical experience and will support students in life-long learning by facilitating the implementation of current theory into practice which will provide the scope required for those wishing to progress to specialist posts.</p> <p>It will enable students working in various aspects of peripheral vascular medicine to develop their knowledge and analytical skills through interactive online learning opportunities, and to critically examine practices within the context of the legislative and professional frameworks of their own country. The module will be delivered online with access to a wide range of resources including taught presentations, interactive webinars, videos and URL links. 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>• Patient history taking relevant to both arterial and venous disease</li> <li>• Risks factors for arterial and venous pathology of the lower limbs</li> <li>• Clinical examination: visual, hands, arm pulse, blood pressure, abdominal, peripheral pulses including femoral, popliteal and distal pulses, venous examination</li> <li>• Arterial and venous system anatomy and pathology</li> </ul>	

- Non-invasive (outpatient) imaging; including indications for use, referrals and principles for carrying out hand held doppler assessment, toe and ankle, brachial pressure indices, indications for use, referrals and principles for carrying out duplex ultrasound scanning, TCPO<sub>2</sub>
- Cross-sectional imaging including indications for use of MRI, CT scans, diagnostic angiogram: advantages and disadvantages
- Advancing techniques for the assessment of peripheral arterial and venous diseases

<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 to develop the assessment of peripheral vascular disease.	
	<b>2</b>	Critically review interdisciplinary leadership and team working to facilitate effective assessment and management and excellence in peripheral vascular disease for practitioners nationally and internationally.	
	<b>3</b>	Critically reflect on competency and innovation in vascular diseases, building on existing knowledge and clinical skills development.	
	<b>4</b>	Critically evaluate clinical practice approaches in order to develop and deliver safe, effective and efficient individualised, age-appropriate management of individuals experiencing peripheral vascular disease.	

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

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 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</i> 9th Edition Elsevier Hardcover ISBN: 9780323427913. eBook ISBN: 9780323581301</p>	

**Journals:**

- 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.*

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)

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

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>

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)