

Curriculum Vitae

Professor Michael J Gough MB ChB, ChM, FRCS

Consultant Vascular Surgeon

Leeds Teaching Hospitals NHS Trust

&

Professor of Vascular Surgery

University of Leeds

CURRICULUM VITAE

Name: Michael John Gough

Year of birth: 1952

Mobile: 07780 703759

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Other Consulting Rooms:

By arrangement: The Leeds Nuffield Hospital
(via Secretary) 2 Leighton Street
Leeds
LS2 1EB

The Yorkshire Clinic
Bradford Road
Bingley
BD16 1TW

Medical school: Leeds University School of Medicine

Qualification: MB, ChB (Leeds) 1975
FRCS - Royal College of Surgeons of England 1980
ChM (Leeds) 1984

Full Registration: 1976

GMC Registration No.: 2246820

Professional Indemnity: Medical Defence Union

Present Appointments

Clinical Appointments: Consultant Vascular Surgeon, The General Infirmary at Leeds

Academic/Scientific Appointments:

President 2007-2008
Vascular Society of Great Britain and Ireland

Chair, Professional Standards Committee (current)
Vascular Society of Great Britain and Ireland

Professor of Vascular Surgery - University of Leeds

Director - Vascular Research Unit, Department Biomedical
Sciences, University of Bradford (1988-1998)

1993-2000 Member of Council
Vascular Society of Great Britain and Ireland

1996-2000 Honorary Treasurer
Vascular Society of Great Britain and Ireland

1993-2002 Vascular Advisory Committee
Vascular Society of Great Britain and Ireland

1993-2002 Regional Educational Advisor
Vascular Society of Great Britain and Ireland

1993-2000 Audit Committee
Vascular Society of Great Britain and Ireland

1995-2000 Surgical Tutor, Royal College of Surgeons of England
ULTH NHS Trust

1999-2004 Chairman, Basic Surgical Training Committee
Yorkshire and Northern RHA

2005-2009 Higher Surgical Training Committee
Yorkshire and Northern RHA

2009-present Head of School of Surgery
Yorkshire & Humber Deanery

Other Appointments:

Court of Examiners (General Surgery), Intercollegiate Examinations Board
College Adviser, RCS of England on Consultant Appointment Committees
Independent Peer Review for Clinical Complaints
Adviser to the Health Ombudsman for Clinical Complaints
Internal Examiner for Higher Degrees, Leeds University
External Examiner for Higher Degrees, Universities of Leicester & Manchester
Medical adviser to Diomed Inc – Laser Systems
Medical Adviser to NICE

Membership of Learned Societies:

Surgical Research Society
Vascular Surgical Society of Great Britain & Ireland
European Society for Vascular Surgery
Association of Surgeons of Great Britain & Ireland
Association of International Vascular Surgeons
Moynihan Chirurgical Society (by invitation)
Peripheral Vascular Club (by invitation)

Previous Appointments:

1986-1990 Consultant General & Vascular Surgeon to the Bradford Hospitals

Medical Experience

- Consultant Vascular/General Surgeon since 1986
- Previous training in surgery: Registrar, Royal Free Hospital, London
Senior Surgical Registrar, Yorkshire RHA
- Wide experience in most aspects of general surgery with special expertise in vascular surgery (arterial & venous). As a consultant practised in general and vascular surgery until 1996 (10 years). Since 1996 workload has been almost exclusively vascular in nature together with minor general surgery.
- >4,500 vascular (arterial) procedures in last 10 years
- Large tertiary referral practice from other vascular surgeons for patients with complex arterial problems. Particular expertise in suprarenal and thoraco-abdominal aneurysm surgery, endovascular aneurysm repair, visceral reconstruction and carotid surgery. Additional practice in routine vascular surgery for lower limb reconstruction.

- Extensive varicose vein practice. Development of endovenous laser treatment for varicose veins in UK.
- Significant interest in clinical audit having developed one of the first computer-based audit programmes for vascular surgery in 1991 which has recently been revised.
- Major involvement in the recent development of vascular surgery policy as a member of the Council of the Vascular Surgical Society of Great Britain and Ireland (and various sub-committees). This has included the formulation of clinical guidelines, policies for service provision and training, and patient information and informed consent literature.

Medico-legal Experience

- Preparation of reports on a regular basis for the last 18 years
- >500 reports for vibration white finger
- Provision of medical negligence reports on complications of arterial and venous (varicose vein) surgery on a regular basis
- Reports for Her Majesty's Coroner, expert witness at inquests
- Reports on deep vein thrombosis & pulmonary embolus
- Reports prepared on the complications of arteriography and radiological intervention for vascular disease
- Reports on soft tissue injuries with potential vascular or venous complications including deep vein thrombosis and post-phlebotic limb
- Reports on the vascular complications of orthopaedic injuries including reflex sympathetic dystrophy
- Reports on the development of inguinal herniae in relation to injury
- Predominant (60%) workload has been for plaintiff on the basis of a large experience in vibration white finger. With this exception a similar number of reports have been prepared for both the plaintiff and the defendant prior to the Wolff reforms, including work for the medical defense organizations (20% defendant/20% joint).
- Court experience, including Coroner's Court (expert witness work for coroners)
- Previously an assessor in the NHS Independent Peer-Review process for clinical complaints. Currently adviser to the Health Ombudsman for clinical complaints

Educational and Research Activities

The following summarises my activities in these fields in relation to my areas of clinical expertise:

Educational Activities

- 1995-2000 College Tutor, Royal College of Surgeons of England
- 1999-Present Chairman, Regional Basic Surgical Training Committee
- 2000-Present Member of Regional Higher Surgical Training Committee
- 1993-2002 Educational Adviser, Vascular Surgical Society of GB & Ireland
- Teaching on Royal College Basic Surgical Skills Courses
- Teaching on Royal College of Surgeons annual course on Head, Neck, Upper Limb Vascular Surgery, including thoracoscopic sympathectomy
- Co-organiser of Leeds Vascular Surgery Course
- Organiser of Courses on Endovascular Aneurysm Repair, Carotid Surgery, Endoscopic Sympathectomy
- Numerous invited lectures to societies (including Vascular Surgical Society, Association of Surgeons of Great Britain & Ireland, Venous Forum, Edinburgh Masterclass in Vascular Surgery, Royal College of Surgeons of Edinburgh, World Congress of Endoscopic Surgery) and hospitals in both the UK and abroad.

Research Activities

- For the 15 of the 17 years that I have been a consultant, including during my time in Bradford, I have run an active research unit
- Currently employing 2 Research Fellows and 2.5 wte research nurses
- Research funding from grants from The British Heart Foundation, PPP Trust, Yorkshire & Northern Health Authority, The Special Trustees of The General Infirmary at Leeds, NHS Health Technology Assessment, Leeds Teaching Hospitals NHS Trust and the pharmaceutical and vascular device industries
- Total the funding approaching £3,000,000
- Funds used for salaries, laboratory costs, scientific equipment, equipment for the Vascular Laboratory at the General Infirmary at Leeds and monitoring equipment for Carotid research

urrent Research Programme

Externally Funded Studies

- ***Principal Investigator GALA Trial***

This is a multicentre randomised trial of local v general anaesthesia for carotid endarterectomy (CEA). This trial is testing the hypothesis that local anaesthesia is associated with a 50% reduction in stroke and death v general anaesthesia (evidence from our own data and from meta-analysis of previous non-randomised studies).

Co-investigators: Professor C P Warlow, Edinburgh University (Neurosciences Trials Unit) & Professor M Horrocks.

- Collaboration with Dr P Rothwell, University of Oxford on MRC funded study to develop a carotid plaque bank for DNA/genetic study.
- Co-investigator of NHS Health Technologies Assessment funded study undertaking a systematic review to determine the role of magnetic resonance angiography (MRA) in the investigation of carotid stenoses and peripheral vascular disease.
- Co-investigator in EVAR I & EVAR II studies assessing the outcome of endovascular aortic aneurysm repair – funded by NHS Health Technologies Assessment programme.
- A multicentre randomised study of an endothelin receptor antagonist in the management of intermittent claudication – funded by Smith Klein Beecham

Studies based in the Vascular Surgical Unit.

- *Development and assessment of the role of Endovascular Laser Treatment for varicose veins*
These studies are investigating a novel method of minimally invasive out-patient treatment for varicose veins performed under local anaesthesia.
- *Assessment of factors promoting carotid plaque instability:*
This study is assessing macrophage infiltration and cyclo-oxygenase I & II expression in symptomatic and asymptomatic carotid plaques and is attempting to correlate any differences with changes in collagen turnover, vascular smooth muscle cell apoptosis and the time interval since a neurological event.
 - *An investigation of the role of MRI in assessing carotid plaque instability:*
The findings of the histological studies are being correlated with both *in-vivo* (pre-operative) and *in-vitro* (post-operative scanning of plaque) MR imaging.
- *Assessment of quantitative ultrasound to determine features of carotid plaque instability:*
This technique uses digital image analysis to provide semi-quantitative measures of carotid plaque morphology, which can then be compared with plaque histology.
 - *Biochemical markers of cerebral injury following carotid endarterectomy:*
This study is comparing ipsilateral jugular venous S100 and neurone specific enolase (NSE) levels (markers of cerebral ischaemia) following carotid endarterectomy under either local or general anaesthesia. The data from this study is also being used as part of the neuropsychological study.

- *Neuropsychometric assessment of patients undergoing carotid endarterectomy:*
This study examines neuropsychometric changes in patients undergoing carotid endarterectomy under either local or general anaesthetic. It is also comparing psychological outcomes in patients with evidence of intra-operative cerebral ischaemia (changes in S100 & NSE levels). The study is being performed in collaboration with the Psychology Department, Leeds University and is jointly funded by the University and the Vascular Unit.
- *Development of a carotid specific quality of life questionnaire:*
This is a joint study between the Vascular Units at the Infirmary and Bath (Professor M Horrocks). The aims of the study are to develop a quality of life questionnaire that is specific for patients undergoing carotid surgery which can then be used to assess any differences between patients undergoing either local or general anaesthetic carotid surgery.
- *Assessment of conventional diathermy and the harmonic scalpel for thoracoscopic sympathectomy:*
This study is assessing differences in the severity of post-operative pain in patients undergoing thoracoscopic sympathectomy for hyperhidrosis. The hypothesis for the study is that conducted heat damage to the intercostal nerves, and thus post-operative pain is greater in patients in whom conventional diathermy is used.
- *Collaboration with Professor Homer-Vanniasinkam:*
Professor Homer-Vanniasinkam, also a consultant on the Vascular Unit, has a research interest in the pathogenesis and prevention of ischaemia reperfusion. There is full co-operation in performing joint clinical studies in patients undergoing vascular reconstruction.

Theses Awarded From Vascular Surgical Unit

Mr S C Hardy was awarded an MD in December 1992 for a thesis based on the work describing the development of an in-vivo (rat hind limb) model of reperfusion injury.

Supervisor: M.J. Gough

Miss Y C Lim was awarded a PhD in June 1996 for a thesis based upon work in developing an in-vitro model of ischaemia-reperfusion in a human endothelial cell culture system in the Vascular Research Unit.

Joint Supervisors: M.J. Gough, Professor S Homer-Vanniasinkam

Mr J N Crinnion was awarded an MD in December 1997 for a thesis describing the role of neutrophils in the pathogenesis of reperfusion injury.

Supervisor: M.J. Gough

Professor S Homer-Vanniasinkam has been awarded an MD (with Commendation) for a thesis on her work investigating the role of arachidonic acid metabolites in the pathogenesis of reperfusion injury.

Supervisor: M.J. Gough

Dr James Cruickshank has been awarded a PhD for a thesis investigating the assessment of changes

in cognitive function following carotid endarterectomy.

Joint Supervisors: M J Gough, Dr Mitch Waterman

Mr S M Wijeyaratne has been awarded an MD for his work on the assessment of factors that determine carotid plaque instability.

Supervisor: M.J. Gough

Mr D Russell has been awarded an MD for studies on factors promoting carotid plaque instability and MR imaging of carotid plaques.

Supervisor: M.J. Gough

Miss RJ Beale has been awarded an MD for studies on the use of lasers for the treatment of varicose veins.

Theses currently in preparation

Mr D Dellagrammaticas has recently completed studies relating to of the influence of the method of anaesthesia upon cerebral autoregulation and post-operative haemodynamic instability following carotid endarterectomy

Mr N Theivakumar has undertaken studies assessing various aspect of endovenous laser therapy for varicose veins.

Ch.M Thesis - Michael J Gough

Studies On The Aetiology Of Peptic Ulceration And The Late Complications Of Its Surgery - University Of Leeds 1984.

This thesis was submitted and the degree of Master of Surgery awarded in 1984. The early work for this thesis was undertaken whilst I held the Manny Cussins Research Fellowship in the University Department of Surgery, St. James's University Hospital, Leeds. It continued throughout my appointment to the Postgraduate Training Scheme in Surgery at St. James's and during my middle grade registrar post at the Royal Free Hospital.

This thesis investigated the importance of genetic factors in the aetiology of duodenal ulceration and their relationship to gastric acid secretion and the clinical result from truncal vagotomy and a drainage procedure for duodenal ulceration.

The second aspect of duodenal ulcer disease covered in this thesis examined alterations in gastric emptying, duodenogastric reflux of bile and gastric mucosal permeability in the pathogenesis of combined duodenal and gastric ulceration. Furthermore, the relevance of osmotic control of gastric emptying and alterations in gastric mucosal permeability after truncal vagotomy and drainage were investigated in patients with an unsatisfactory result from ulcer surgery to assess their relevance to the development of post-operative symptoms.

Finally, this thesis reviewed the experimental evidence for the existence of the gastric mucosal barrier and discussed pharmacological and surgical methods of preventing its damage by bile acids and pancreatic juice. This review was accepted for publication in the British Journal of Surgery.

Publications

The references provided are limited to my publications in vascular surgery over the last 2 years, confirming my expertise in this aspect of surgery. In total I have >100 peer-reviewed publications.

1. R.Collins, J. Burch, G. Cranny, R.Aguiar-Ibáñez, D. Craig, K. Wright, E. Berry, M.J.Gough, J. Kleijnen, M.E. Westwood
Duplex ultrasound, magnetic resonance angiography and computed tomography angiography for the diagnosis and assessment of symptomatic, lower limb peripheral arterial disease: systematic review. *British Medical Journal* 2007, 334: 1257
2. R.Collins, G. Cranny, J. Burch, R.Aguiar-Ibáñez, D. Craig, K. Wright, E. Berry, M.J.Gough, J. Kleijnen, M.E. Westwood
A systematic review of duplex ultrasound, magnetic resonance angiography and computed tomography angiography for the diagnosis and assessment of symptomatic, lower limb peripheral arterial disease. *Health Technology Assessment* 2007: 11,20
3. N.S. Theivacumar, R.J. Beale, A.I.D Mavor, M.J.Gough
Initial experience in endovenous laser ablation (EVLA) of varicose veins due to small saphenous vein reflux. *European Journal of Vascular & Endovascular Surgery* 2007, 33:614-8
4. K.J. Dickinson, D.J. Parry, J.A. Sandoe, M.J. Gough
Multiple peripheral pneumococcal mycotic aneurysms without aortic involvement: a unique case confirmed with the novel use of a molecular diagnostic technique. *Journal of Vascular Surgery* 2007, 45:1253-5
5. P.A. Coughlin, V. Gulati, A.I.D. Mavor, M.J. Gough, S. Homer-Vanniasinkam
Risk factor awareness in patients with peripheral arterial disease. *Journal of Cardiovascular Surgery* 2007, 48:735-40
6. D.A. Russell, S M Wijeyaratne, M.J. Gough.
Carotid plaque echomorphology - Changes with time after a neurological event. *Journal of Vascular Surgery* 2007, 45:367-7
7. R.S. Vohra, J. Wolfe-Barry, J. Dodman, M.J. Gough, S. Homer-Vanniasinkam, A.I.D. Mavor, S.J. Howell
Patients undergoing major non-cardiac vascular surgery (NCVS): Where do we fail in secondary cardiovascular prevention (SCP) of coronary artery disease (CAD)? *European Journal of Vascular & Endovascular Surgery* 2007, 33:190-1
8. N.S. Theivacumar, D. Dellagrammaticas, A.I.D. Mavor, M.J. Gough
Endovenous Laser Ablation (EVLA) of Great Saphenous Vein to Abolish "Paradoxical Reflux" in the Giacomini Vein: A Short Report.

European Journal of Vascular & Endovascular Surgery. 2007 34:229-31

9. R.V. Vohra, P.A. Coughlin, M.J. Gough

Occupational Capacity Following Surgical Revascularisation For Lower Limb Claudication
European Journal of Vascular & Endovascular Surgery. 2007 34:709-13

10. D. Dellagrammaticas, S. Lewis, B. Colam, P. Rothwell, C.P. Warlow, M.J. Gough.

Carotid endarterectomy in the UK: acceptable risks but unacceptable delays.

Clinical Medicine 2007 7:589:92

11. L.A. Rhodes, C.R. Abbott, G. Fisher, D.A. Russell, D. Dellagrammaticas, M.J. Gough,
S.F. Tanner

High resolution magnetic resonance imaging of excised carotid tissue: the effect of specimen
temperature on image contrast.

Journal of Cardiovascular Magnetic Resonance Imaging 2007 9: 915-20

12. N.S. Theivacumar, D. Dellagrammaticas, R.J. Beale, A.I.D. Mavor, M.J. Gough

Fate and clinical significance of saphenofemoral junction tributaries following endovenous laser
ablation of great saphenous vein

British Journal of Surgery 2007, 94: 722-725

13. M.A. Bailey, D.J.A. Scott, R.G. Tunstall, M.J. Gough

Lateral External Carotid Artery: Implications for the Vascular Surgeon

European Journal of Vascular and Endovascular Surgery 2007, 34:92

14. N.S. Theivacumar, M.J. Gough.

The clinical significance of distal great saphenous venous reflux after proximal endovenous laser
ablation

Phlebology 2008 – in press

15. R.J. Darwood, N.S. Theivacumar, D. Dellagrammaticas,

A.I.D. Mavor, M.J. Gough. Randomized clinical trial comparing endovenous laser ablation with
surgery for the treatment of primary great saphenous varicose veins

British Journal of Surgery 2008, 95: 294-301

16. N.S. Theivacumar, D. Dellagrammaticas, R.J. Darwood, A.I.D. Mavor, M.J. Gough.

Fate of the Great Saphenous Vein Following Endovenous Laser Ablation: Does Re-canalisation
Mean Recurrence?

European Journal of Vascular and Endovascular Surgery 2008, 36:211-215

17. D. Dellagrammaticas, S.C. Lewis, M.J. Gough and On behalf of the GALA Trial Collaborators
Is Heparin Reversal with Protamine after Carotid Endarterectomy Dangerous?

European Journal of Vascular and Endovascular Surgery 2008, 36:41-44

18. V.P. Jagadeshm, M.J. Gough

Can the UK guidelines for stroke be effective? Attitudes to the symptoms of a transient ischaemic
attack (TIA) amongst the general public and doctors.

Clinical Medicine 2008, 8:366-70

19. C.J. Hammond, S.J. McPherson, J.V. Patel, M.J. Gough
Assessment of Apparent Internal Carotid Occlusion on Ultrasound: Prospective Comparison of Contrast-enhanced Ultrasound, Magnetic Resonance Angiography and Digital Subtraction Angiography
European Journal of Vascular and Endovascular Surgery 2008, 35: 405-412
20. V.P. Jagadesham, A.I.D. Mavor, M.J. Gough
Unilateral Gluteal Compartment Syndrome: A Complication of Open Abdominal Aortic Aneurysm Repair Using an Aortobifemoral Bypass Graft
European Journal of Vascular and Endovascular Surgery 2008, 35:378
21. M.J. Gough, A.R. Bodenham, M. Horrocks, B. Colam, S.C. Lewis, P. Rothwell, A.P. Banning, D. Torgerson, M. Gough, D. Dellagrammaticas, A. Leigh-Brown, C. Liapis C.P. Warlow
GALA: an international multicentre randomised trial comparing general anaesthesia versus local anaesthesia for carotid surgery.
Trials <http://www.trialsjournal.com/content/9/1/28>
22. N.S. Theivacumar, D. Dellagrammaticas, R.J. Beale, A.I.D. Mavor, M.J. Gough
Factors Influencing the Effectiveness of Endovenous Laser Ablation (EVLA) in the Treatment of Great Saphenous Vein Reflux
European Journal of Vascular and Endovascular Surgery 2008, 35:119-123
23. R.S. Vohra, P.A. Coughlin, P. McShane, M. Bains, K.A. Laughlan, M.J. Gough, on behalf of the General Anaesthetic versus Local Anaesthetic for carotid endarterectomy (GALA) trial collaborators.
Predictors of return to work following carotid endarterectomy
British Journal of Surgery 2008, 95: 1111-1114
24. H.R.S. Girn, D. Dellagrammaticas, K. Laughlan, M.J. Gough and On behalf of the GALA Trial Collaborators
Carotid Endarterectomy: Technical Practices of Surgeons Participating in the GALA Trial
European Journal of Vascular and Endovascular Surgery 2008, 36:385-389
25. N.S. Theivacumar, D. Dellagrammaticas, A.I.D. Mavor, M.J. Gough
Endovenous laser ablation: does standard above-knee great saphenous vein ablation provide optimum results in patients with both above- and below-knee reflux? A randomized controlled trial.
Journal of Vascular Surgery 2008, 48:173-8.
26. D.A. Russell, C.R. Abbott, M.J. Gough
Vascular endothelial growth factor is associated with histological instability of carotid plaques
British Journal of Surgery 2008, 95: 576-581
27. N.S. Theivacumar, R.J. Darwood, M.J. Gough
Endovenous laser ablation (EVLA) of the anterior accessory great saphenous vein (AAGSV): abolition of sapheno-femoral reflux with preservation of the great saphenous vein.
European Journal of Vascular and Endovascular Surgery, in press
28. S.C. Lewis, C.P. Warlow, A.R. Bodenham, B. Colam, P.M. Rothwell, D.J. Torgerson,

D. Dellagrammaticas, M. Horrocks, C.D. Liapis, A.P. Banning, M. Gough, M.J.Gough, for the GALA Collaborative group

General anaesthesia versus local anaesthesia for carotid surgery (GALA): an open, multicentre, randomised trial.

Lancet 2008, 372:2132-2142

29. Chappell FM, Wardlaw JM, Young GR, Gillard JH, Roditi GH, Yip B, Pell JP, Rothwell PM, Brown MM, Gough MJ, Randall MS. Accuracy of Noninvasive Tests for Carotid Stenosis - an Individual Patient Data Meta-analysis. Radiology 2009 (in press)

Other Contributions to Journals

30. M.J. Gough

Local versus GA for Carotid Endarterectomy: Improving the Gold Standard?

European Journal of Vascular and Endovascular Surgery 2008, 36:150-151

31. M.J. Gough

Improving the outcome of carotid endarterectomy

British Journal of Surgery 2008, 95: 1315-1316

32. M.J. Gough on behalf of the GALA Trial Collaborators

The GALA Trial – A Summary of the Findings

European Journal of Vascular and Endovascular Surgery 2008, 36: 505-506