

Curriculum Vitae

Alan Norrish

BSc, MB BChir, LLM, PhD, PGDip HSM, AFHEA, FCS (ECSA), FRCS (Tr & Orth)

Associate Medical Director

Consultant and Orthopaedic Surgeon

Subspecialist interest in lower limb surgery

Queen Elizabeth Hospital King's Lynn NHS Foundation Trust,
Gayton Road, Kings Lynn, PE30 4ET

Senior Research Fellow (part-time), Academic Orthopaedics, Trauma and Sports Medicine
School of Medicine, Faculty of Medicine and Health Sciences, University of Nottingham

Editorial Board Member (voluntary), Bone & Joint³⁶⁰, 22 Buckingham Street, London, WC2N 6ET

Pitch-side Club Doctor (voluntary): Cambridge Rugby Football Club
Cambridge Rugby Football Club, Volac Park, Grantchester Rd, Cambridge CB3 9ED

Personal

Personal Details

Full name:	Alan Raymond Norrish
Correspondence Address:	245 Queen Ediths Way Cambridge CB1 8NJ
Telephone:	07599510391
Email:	a.norrish@nhs.net
Date of Birth:	28 th September, 1971
Nationality:	British
Driving Licence:	Full
GMC Registration:	4616270
Date admitted to Specialist Register:	31 st July, 2007

Personal Statement

I currently work part-time in a clinical role (36 hours per week including on call) as an Orthopaedic Consultant Surgeon and a part-time non-clinical role (12 hours per week) as the Associate Medical Director at the Queen Elizabeth Hospital King's Lynn NHS Foundation Trust. I have an additional part-time paid role (9 hours per week) as a Senior Research Fellow at the University of Nottingham in the Department of Trauma, Orthopaedics and Sports Medicine. I am a volunteer pitch-side doctor for the English National League 1 club, Cambridge Rugby Club.

I finished my specialty training in trauma and orthopaedic surgery in July of 2007 and I have practised as a full-time Consultant until August 2019. Initially I worked for a charity organisation called Cure International in Zambia, the Middle East and Afghanistan. In 2010 I started as a locum consultant and I was subsequently appointed to a substantive post in March 2011 at Addenbrookes Hospital in Cambridge. I worked at Addenbrookes Hospital until March 2019.

I have a strong interest in teaching and education, with roles in face-to-face teaching, blended learning and remote learning. I also supervise a number of students in their research projects and examine for various institutions.

Qualifications

- 1994 **BSc (Hons)**, Pharmacology and Medical Science (First Class)
University of London
- 1999 **MB BChir** (Distinction in Surgery)
University of Cambridge
- 1999 **PhD**, Wellcome Trust Centre for Molecular Mechanisms in Disease
University of Cambridge
- 2006 **FRCS (Trauma and Orthopaedics)**
Elected to fellowship at the Royal College of Surgeons, Edinburgh

I have also been elected as a Fellow of the Royal College of Surgeons of England in 2016
- 2007 **LLM**, Master of Laws degree in Medical Law (Distinction Awarded)
Cardiff Law School, University of Cardiff
- 2015 **PG Dip HSM**, Postgraduate Diploma in Health Service Management
Keele School of Management, Keele University
- 2016 **FCS (ECSA)**, Fellow (by election) of the College of East, Central and Southern Africa
- 2020 **AFHEA**, Associate Fellowship of the Higher Education Academy
- 2021 **MBA Candidate**, Queen Mary's University of London

I am a past or present member of the following organisations:

- Member of the International Society of Trauma and Orthopaedic (SICOT)
- Fellow of the British Orthopaedic Association
- Fellow of the Royal College of Surgeons of England
- Member of British Limb Reconstruction Society
- Member of the Orthopaedic Trauma Society
- Member of AO Trauma Foundation
- Member of British Association of Surgery of the Knee
- Member of the British Hip Society
- Member of World Orthopaedic Concern

Employment History

King's Lynn

Mar 2021 – pres.: Associate Medical Director (part-time), Queen Elizabeth Hospital King's Lynn NHS Foundation Trust, Gayton Road, Kings Lynn, PE30 4ET

Jan 2021 – pres.: Consultant Orthopaedic Surgeon, Queen Elizabeth Hospital King's Lynn NHS Foundation Trust, Gayton Road, Kings Lynn, PE30 4ET

Sept 2019 – pres. University of London, Global Master of Business Administration student (part-time). I have completed all of the modules needed to achieve this degree, but I am awaiting the grades for my final exams. This degree has a subspecialty of 'Leadership'. I hope to complete this degree by October 2021.

Nottingham

May 2020 – pres.: Senior Research Fellow (part-time), University of Nottingham. Academic Orthopaedics, Trauma and Sports Medicine, School of Medicine, Faculty of Medicine and Health Sciences, Queen's Medical Centre, Nottingham, NG7 2UH

In addition to carrying out research, I have been an external lecturer on the University of Nottingham MSc in Applied/Sports and Exercise Medicine. In addition to direct teaching, I have supervised two students on their dissertation and assisted with marking the 'Team Medicine' module and the dissertations.

Aug 2020 - Dec 2020.: Senior Clinical Fellow, Nottingham University Hospitals, Queens Medical Centre, Derby Road, Nottingham, NG7 2UH

Jan 2020 - Dec 2020: Patient Safety Improvement Lead. Nottingham University Hospitals NHS Foundation Trust, Corporate Patient Safety Department, Hucknall Road, Nottingham, NG5 1PB

This was a part-time, ad hoc role where I was part of a team investigating serious incidents and improving safety and quality in the hospital under the leadership of the Head of Patient Safety and the Medical Director

Sept 2019 – Feb 2020.: Associate University Research Fellow, University of Nottingham. Academic Orthopaedics, Trauma and Sports Medicine, School of Medicine, Faculty of Medicine and Health Sciences, Queen's Medical Centre, Nottingham, NG7 2UH

This role involved research on 'Smart' intramedullary nails and teaching as an external lecturer on the University of Nottingham MSc in Applied/Sports and Exercise Medicine. The main subjects taught were sports relevant anatomy, wilderness medicine and clinical sports injuries.

Cambridge

Aug 2020- pres.: Pitch-side Club Doctor: Cambridge Rugby Football Club

Cambridge Rugby Football Club, Volac Park, Grantchester Rd, Cambridge CB3 9ED

I attend home games and ad hoc midweek clinics, and providing medical care for the 1st, 2nd and 3rd XV players from home and visiting teams. I also provide medical care for the crowd as needed. It is a voluntary role.

Sept 2020 – pres.: Senior Anatomy Demonstrator, Human Anatomy Teaching Group, Dept. of Physiology, Development and Neuroscience, University of Cambridge

I teach human anatomy to first year medical students, through assistance of dissection, prosection lectures (video recorded) and zoom problem solving meetings. I also supervise students doing a dissertation in anatomy as part of specialized research projects.

Sept 2020 – pres.: Undergraduate College Anatomy Supervisor, Magdalene St, Cambridge CB3 0AG, University of Cambridge

I teach three groups of 1st year undergraduate students for 1 hour per week each (3 hours per week) during each of the eight-week terms at University of Cambridge. I set and mark essays and MCQs on a weekly basis, giving feedback. I teach all anatomy, except head and neck (above the hyoid bone).

Aug 2017- Aug 2019.: Pitch-side Club Doctor: Cambridge Rugby Football Club
Cambridge Rugby Football Club, Volac Park, Grantchester Rd, Cambridge CB3 9ED

Sept 2010 – Mar 2019.: Consultant Trauma and Orthopaedic Surgeon, Addenbrooke's Hospital Cambridge
University Hospitals NHS Foundation Trust, Hills Road, Cambridge, CB2 0QQ Positions of added responsibility:
Specialty Lead for Trauma and Orthopaedic Surgery, Deputy Clinical Director for Musculoskeletal Directorate,
Deputy Medical Director of the Hospital

2013 – 2019.: University of Cambridge, Associate Lecturer

2014 – 2017: Anglia Ruskin University, Visiting Honorary Senior Lecturer, and Course Director
Masters in Surgery (Orthopaedics)

International

May 2021 – pres.: Volunteer Consultant Orthopaedic Surgeon, with **King's Global Health Partners** in Zambia:
developing a hip replacement program

Jun 2012 – Mar 2019: Volunteer Consultant Orthopaedic Surgeon, with **Cambridge Global Health Partners** in
Myanmar: developing educational courses with University of Medicine 1 in Yangon

Aug 2007 – Aug 2010: Consultant Orthopaedic Surgeon, with Cure International
Cure International, 701 Bosler Avenue, Lemoyne, PA 17043, USA-

Aug 2007 – Jul 2009: Consultant Orthopaedic Surgeon, Director of Research and Education
First overseas posting: Lusaka, Zambia

Aug 2009 – Aug 2010 Senior Consultant Orthopaedic Surgeon
Second Overseas Posting: Afghanistan and United Arab Emirates

Training

Aug 2002 – Jul 2007: Eastern Deanery Training Programme: Trauma and Orthopaedics

Aug 2005 – Jul 2006: Advanced Training Fellowship: Blantyre, Malawi

Aug 1999 – Jul 2002: Basic Surgical Training: Cambridge University Hospitals and Papworth Hospital

Teaching and Examining Experience

I have had the following formal academic teaching roles:

- 2020 – pres.: Anatomy supervisor, Magdalene College, University of Cambridge
- 2019 – pres.: External Lecturer on the Applied/Sports and Exercise Medicine MSc, University of Nottingham
- 2019 – pres: Senior Anatomy Demonstrator, University of Cambridge
- 2013 – 2019: Associate Lecturer, School of Clinical Medicine, University of Cambridge
- 2015 - 2019: Course Director, Mastery of Surgery, Anglia Ruskin University
- 2008 - 2009: Lecturer, University of Zambia

Recent experience

I am responsible for the planning and development of several clinically relevant musculoskeletal anatomy lectures on a module of the Applied/Sports and Exercise Medicine MSc. The learners are a mixed group of clinical and non-clinical students, with some native English language speakers and some not. Using the evidence-based 3-step 'needs assessment, development of learning objectives, and choosing a teaching approach' (Hauer and Quill, 2011), I am able to use the module teaching brief to develop measurable learning objectives for each of the planned activities.

In planning these learning activities, I considered a case-based, 'story-telling' approach likely to be effective for teaching clinical anatomy. To maximise motivation, attention, participation and active learning I employ, for the class of approximately 30 students, an interactive lecture style. I had read that understanding 3-dimensional relationships in anatomy were of greater learning value than pictures of 2 dimensional images alone (Nicholson et al., 2006) [D1v]. To increase the effectiveness of my teaching and to allow students to consider application of their learning, I plan a time for individual or group reflection after each lecture.

I have greatly enjoyed teaching on 'Clinical Sports Injuries' on the Applied/Sports and Exercise Medicine MSc at the University of Nottingham. I was able to draw on my experience as pitch-side doctor at Cambridge Rugby Club. I chose the interactive lecture style, with multimedia case-based discussions. I found that the use of expectant questions, and the use of techniques normally associated with small-group teaching, such as personally resisting the temptation to say something, but waiting for others to contribute, very enlivening. It created a richness of experience possible in a seminar sized group of 30 students and was able to draw on their diverse background and experience for mutual benefit. The feedback that I had from students, both informally and through Blue Castle showed that the participative style was valued. I have reflected that I tend to try to fit too much content into the allocated teaching time. By observing other teachers in different modules of the aforementioned Master's program. I am in the process of planning my teaching for the next academic year, through a blended format.

I work with an educational taskforce for orthopaedic theatre nurse education with a 6000 member-strong external group called (AOTrauma), based in Switzerland. AOTrauma fulfils its mission 'to promote excellence in patient

care and outcomes' through a comprehensive professional education program. Originally this was done through face-to-face courses, and despite adding a webinar program, we were not satisfied with the access that nurses had to the educational content, due to a number of geographical and financial limitations]. The taskforce set about an innovative program, working with educationalists from the University of Zurich, to develop 'Clinical Training Modules'. I was the 'surgeon' representative for developing and testing teaching materials. The materials were pre-and post-course quizzes to allow assessment of measurable outcomes, a slide pack for 2-3 lectures (with notes for the lecturer) and a slide pack or video for a practical or small group discussion. Each program was designed to last 3 hours and translated into multiple languages. I was an integral part of developing the course and education materials through an iterative process, both remotely and in a series of face-to-face workshops in Switzerland hosted by educationalists. I learned a tremendous amount about development of educational programs through this project, that has now been delivered to thousands of nurses worldwide, with our technique and results recently being presented (Johnston et al., 2018) and many of the same principles published in textbook form (Norrish and Lavy, 2018).

I also teach prospective medical students, during the time that they are considering applying for university. They encompassed students from a wide variety of backgrounds, including private schools and schools from deprived areas. I have also been involved with 'Target Oxbridge', focused on increasing access to Oxford and Cambridge for black people. I found that the highlight of these experiences for students is a suture workshop, where I provide the equipment and teach students to suture wounds on simulated skin. There were two aspects to this that I found particularly rewarding. The first was the setting of clear objectives, breaking the practical task down into manageable steps and real-time feedback that resulted in a demonstrable growth of the student's confidence with the task (and the idea of studying undergraduate medicine). The second, and the one that came more as a surprise to me, was the questions about medicine that students asked, in a one-to-one situation, when I came around to supervise their work. Students were able to open up about their circumstances, hopes and fears for studying their chosen degree. I was able to mentor and encourage them individually, which was very rewarding.

I designed a medical education programme for junior surgeons in Myanmar and was part of a team that was awarded a £250,000 grant to implement this training over several years (2015-2018). I am faculty on many annual courses and have directed two cadaveric courses in Australia. I have given invited lectures in Hungary, Myanmar, Zambia, Malawi, India, Australia, Canada, Italy, Germany, Switzerland, Czech Republic, United Arab Emirates, Kuwait and the United Kingdom. I also designed and ran an international webinar from Switzerland as part of my role for AO Foundation.

Examining

2013 – pres: Examiner for the College of Surgeons of East, Central and Southern Africa

2017 – 2019: External examiner, University of Zambia, Master of Medicine (Orthopaedics)

2016 – 2019: Examiner for the Master of Surgery (Orthopaedics), Anglia Ruskin University

2015 – 2019: Examiner for School of Clinical Medicine, University of Cambridge

Clinical Experience

Since first being appointed as a Consultant in 2007, lower limb trauma, sports and reconstruction surgery has been my main interest. From Africa to Kabul I have treated a full range of patients with complex acute and chronic conditions. I founded and co-led a multidisciplinary regional bone and joint infection service when working in Cambridge. I also have significant experience of the use of mega-prosthesis for complex trauma and infection indications. I have experience also have considerable experience in periprosthetic fracture and non-union surgery, in addition to lower-limb frame reconstruction and amputation. I have developed an increasing interest in lower limb musculoskeletal sports conditions, treating patients with knee ligament injuries and instability, meniscal injuries of the knee, chronic exertional compartment syndrome, stress fractures and tendon conditions. This has dovetailed with my pitch-side care of acute sports injuries. I have experience of pitch-side sports care in rugby and polo.

Management

I enjoy leadership and management and have received a significant amount of formal training in accounting, legal and business management, receiving a PGDip in Health Service Management from Keele University Business School. I am currently enrolled on the London University Global MBA course, a distance learning program. I have completed all of the modules required for the degree, but I am awaiting the results of my final exams.

Local: I am currently the Associate Medical Director in King's Lynn with a wide portfolio of responsibility under the banner of professional standards. I am the trust's medical appraisal lead. In the past I acted as Specialty Lead at Addenbrookes Hospital for Trauma and Orthopaedics for 3 years, working with managers to run the department and giving clinical representation. I also was seconded into the role of Acting Deputy Medical Director for 3 months in 2015.

National: I sat on several national committees such as: British Orthopaedic Trainees Association Committee (representing at the British Orthopaedic Association Education Committee) and the Steering Group for the Orthopaedic Competency Assessment Program. Between 2015-2019 I was a member of the Specialty Advisory Committee of the joint committee of surgical training of the Royal Colleges, the body that oversees the design and implementation of orthopaedic training in the UK and Ireland.

Board Directorships:

2010-2013	Aid to Hospitals Worldwide
2010-2013	MercyFlyers
2013-2015	HoverAid UK Board
2013-2016	HoverAid International Board

Research

I have had a wide experience of research, both laboratory and clinical. I have received scientific training at both the bachelor's and doctorate level. I have published and presented my research findings widely. I have also been active in grant raising for various research endeavours.

2020-pres.: Senior Research Fellow, University of Nottingham

In this role I have a portfolio of research projects. Working with the Trauma Outcomes Group, these projects have included looking at the excess mortality in patients with fragility fractures, working on the PANdemic Tracking of HEalthcare woRkers (PANTHER) study and assessing the patient-reported outcomes of individuals with grade 3 open tibial fractures treated by a 2-ring circular frame.

2019-2020: Associate Research Fellow, University of Nottingham

In this part-time role, I was involved in a Innovate UK funded project to create an antimicrobial coating for intramedullary nails. I was involved in the collection and analysis of qualitative data from patient and public involvement focus groups and the development of a patient information leaflet for a future clinical trial. I have also been involved in research projects and paper writing including subjects such as hip fractures in younger adults, urogenital trauma and trauma in the elderly.

1999 - 2019: Clinical Research Projects

Post PhD, I have been involved in a number of research projects as can be seen by my publications. I have experience of working with the Comprehensive Local Research Network (CLRN) as a principal investigator (FORTIFY trial, IRAS ID: 213821), registered investigator (FaB trial: IRAS ID: 74133) and I have been an active patient recruiter for following national clinical portfolio clinical trials: HEALTH (hip replacement vs hemiarthroplasty), FAITH: (screws vs plate for hip fractures), FixDT (plate vs nail fixation, distal tibial fractures), AIM (ankle fracture operative vs nonoperative treatment), WOOLF (dressings for open fractures).

Publications

I have over 90 publications listed on Google Scholar. I have over 1150 citations. I have an h-index of 14 and an i10-index of 16. Below is a selection of publications.

1. Urbanowicz RA, Tsoleridis T, Jackson HJ, Cusin L, Duncan JD, Chappell JG, Tarr AW, Nightingale J, Norrish AR, Ikram A, Marson B, Craxford SJ, Kelly A, Aithal GP, Vijay A, Tighe PJ, Ball JK, Valdes AM, Ollivere BJ. Two doses of the SARS-CoV-2 BNT162b2 vaccine enhances antibody responses to variants in individuals with prior SARS-CoV-2 infection. *Science Translational Medicine*. Published online 10th August 2021. DOI: 10.1126/scitranslmed.abj0847
2. Coughlin T, Norrish AR, Scammell BE, Matthews PA, Nightingale J, Ollivere BJ. Comparison of rehabilitation interventions in nonoperatively treated distal radius fractures: a randomized controlled trial of effectiveness. *The Bone & Joint Journal*. 2021 Jun 1;103:1-7.

3. Coughlin T, Norrish AR, Scammell BE, Matthews PA, Nightingale J, Ollivere BJ. Infographic: Comparison of rehabilitation interventions in nonoperatively treated distal radius fractures: a randomized controlled trial of effectiveness. *The Bone & Joint Journal*. 2021 Jun 1;103(6):1031-2.
4. Valdes AM, Moon JC, Vijay A, Chaturvedi N, Norrish A, Ikram A, Craxford S, Cusin LM, Nightingale J, Semper A, Brooks T. Longitudinal assessment of symptoms and risk of SARS-CoV-2 infection in healthcare workers across 5 hospitals to understand ethnic differences in infection risk. *EClinicalMedicine*. 2021 Apr 1;34:100835.
5. COVIDSurg Collaborative, GlobalSurg Collaborative. Timing of surgery following SARS-CoV-2 infection: an international prospective cohort study. *Anaesthesia*. 2021 Mar 9.
6. COVIDSurg Collaborative, GlobalSurg Collaborative. SARS-CoV-2 vaccination modelling for safe surgery to save lives: data from an international prospective cohort study [published online ahead of print, 2021 Mar 24]. *Br J Surg*. 2021;znab101. doi:10.1093/bjs/znab101
7. Craxford S, Nightingale J, Ikram A, Marson BA, Kelly A, Norrish A, Vijay A, Astbury S, Cusin L, Ashraf W, Newham J. SARS-CoV-2 transmission from the healthcare setting into the home: a prospective longitudinal cohort study. *medRxiv*. 2021 Jan 1.
8. Kuroda Y, Young M, Shoman H, Punnoose A, Norrish AR, Khanduja V. Advanced rehabilitation technology in orthopaedics—a narrative review. *International Orthopaedics*. 2020 Oct 13:1-8.
9. Sumal AS, Jarvis GE, Norrish AR, Brassett C, Whitaker RH. The role of the angle of the fibularis longus tendon in foot arch support. *Clinical Anatomy*. 2021 May;34(4):651-8.
10. Y Kuroda, M Saito, EN Çınar, A Norrish, V Khanduja. Patient-related risk factors associated with less favourable outcomes following hip arthroscopy: a scoping review. 2020. *The Bone & Joint Journal* 102 (7), 822-831
11. TA Coughlin, JM Nightingale, Y Myint, DP Forward, AR Norrish, BJ Ollivere. Patient-reported outcomes in young patients with isolated fracture of the hip: mean 57 months' follow-up. 2020. *The Bone & Joint Journal* 102 (6), 766-771
12. ZB Hussain, H Shoman, PWP Yau, G Thevendran, F Randelli, M Zhang, MS Kocher, A Norrish, V Khanduja. Protecting healthcare workers from COVID-19: learning from variation in practice and policy identified through a global cross-sectional survey. 2020. *Bone & Joint Open* 1 (5), 144-151
13. Raut, J. Kamal, A.R. Norrish, V. Khanduja. The impact of acetabular labral tears on sexual activity in women. *Journal of Hip Preservation Surgery*. 2019, Dec 6(4):301-303
14. A.R. Norrish & C. Lavy. Fundamental principles in the Operating Theatre and the importance of Global Health. *Bailey & Love's Short Practice of Surgery*, 27th Edition: The Collector's edition. Editors: Norman Williams, P Ronan O'Connell, Andrew McCaskie. 2018. CRC Press. ISBN 9781498796507
15. YN Hammad, A Johnson, A.R. Norrish. Chronic osteomyelitis of the tibia in a runner: catastrophic consequences of shin splints. *BMJ case reports* .2018
16. R Anderson, J Bates-Powell, C Cole, S Kulkarni, E Moore, A.R. Norrish, E Nickerson. Impact on length of hospital stay from dedicated infectious diseases input for orthopaedic infection patients compared with sporadic infection specialist input. 2017. *Orthopaedic Proceedings* 99 (SUPP_22), 29-29
17. D'jon Lopez, E Moore, A.R. Norrish. Management of the infected total hip arthroplasty. *Indian Journal of Orthopaedics*. 2017. 51 (4), 397
18. A Punnoose. A.R. Norrish and K. Pak. Extracorporeal shock wave therapy for achilles and patellar tendinopathy: meta-analysis and a systematic review of the literature. 2017. *Journal of Physiotherapy and Physical Rehabilitation*. 2:1, 1-7
19. G Yip, S Lewis, A Norris, P Hull and A Carrothers. Capacity planning for the implementation of major trauma centres. *Bulletin of the Royal College of Surgeons of England*. March 2016. 98(3):122–126,

20. H. Taki, M. Krkovic, E. Moore, A. Abood, A.R. Norrish. Chronic long bone osteomyelitis: diagnosis, management and current trends. *Br J Hosp Med (Lond)*. 2016 Oct;77(Sup10):C161-C164.
21. D. Lopez, E. Moore, E. Nickerson, A.R. Norrish. (2016) Indium-111 White-Cell SPECT CT Scan: An Emerging Imaging Modality With Great Potential In Bone And Joint Infection. *Bone Joint J* 98 (SUPP 23), 71- 72
22. A. Punnoose, A.R. Norrish, A., I. Wellwood, & K. Pak (2015). The effectiveness of shockwave therapy on achilles and patellar tendinopathy: a systematic review and meta-analysis. *Physiotherapy*, 101, e1240.
23. D.J.W. Cash, A.R. Norrish, V. Khanduja (2014) Establishing a link between Addenbrooke's Hospital, Cambridge and Yangon General Hospital, Myanmar. *Bone & Joint Journal News*; Issue 3, 6-8
24. H. Budd, B. Ollivere, A.R. Norrish (2014). Capacity Building in developing world orthopaedics: can senior trainees help? *Bone & Joint* 360, Vol. 3 Issue 4, 7-10
25. Tew, D., Norrish, A.R. (2014) Chapter 19 'Orthopaedic cases'. Pg 223-235. *A Surgeon's Guide to Anaesthesia and Peri-operative Care*, edited by J. Sturgess, J. Davies, K. Valchanov. Cambridge Orthopaedic Press
26. T. Southorn, A.R. Norrish, K. Gardener, R. Baxandall (2013) Reducing the carbon footprint of the operating theatre: a multicentre quality improvement report. *J Perioper Pract*. 2013 Jun;23(6):144-6
27. S. Daivajna, M. Kaminaris, D. Giotikas, and A.R. Norrish (2013) Low-intensity pulsed ultrasound (lipus) – an alternative treatment for non-union of long bone fractures? *Bone Joint J* 2013 vol. 95-B no. SUPP 23 28
28. D. Giotikas, S. Daivajna, M. Kaminaris and A.R. Norrish (2013) Management of recalcitrant osteomyelitis of the native hip and pelvis with a two-stage debridement and a rectus femoris pedicled interposition graft: a case report of four operations. *Bone Joint J* 2013 vol. 95-B no. SUPP 23 15
29. H. Parwaiz R. Baidyaray A. Norrish (2012) Day surgery in orthopaedic trauma: The cost savings and length of stay potential. *Injury Extra*; 43:10, 113
30. De Rosa A, Norrish A. (2012) The need for early treatment of clubfeet in peripheral hospitals in sub-Saharan Africa: a survey of clubfoot management in Zambia. *Trop Doct*. 2012 Apr;42(2):125-6. Epub 2012 Feb 15.
31. A. Norrish, J. Bates and W.J. Harrison. (2009) Chronic long bone osteomyelitis and limb length discrepancy: a prospective series of 42 patients. *J Bone Joint Surg Br* 2009 vol. 91-B no. SUPP I 130
32. Norrish, A. R., Jibri, Z. A., Hopgood, P. (2009) The LISS plate treatment of supracondylar fractures above a total knee replacement: a case-control study. *Acta Orthop. Belg.*, 2009, 75, 642-648.
33. Lubega, N., Mkandawire, N. C., Sibande, G. C., Norrish, A. R., Harrison, W. J.. Joint replacement in Malawi: establishment of a national joint registry. *Journal of Bone and Joint Surgery (Br)*. 2009, Vol. 91-B: 341-343.
34. Richardson, J., Hill, A. M., Johnston, C. J. C., McGregor, A., Norrish, A. R., Eastwood, D., and Lavy, C. B. D.. Fracture healing in HIV-positive populations. *Journal of Bone and Joint Surgery (Br)*, 2008; Vol. 90-B: 988 - 994.
35. King, T., Le Quesne, H., Norrish, A. R.. Bilateral Panner's disease and sickle cell anaemia: an unusual case. *Annals of African Surgery*. 2008. Vol. 2, Jun. 47-49.
36. Norrish, A. R., Lewis, C. P., and Harrison, W. J.. Pin-track infection in HIV-positive and HIV-negative patients with open fractures treated by external fixation: a prospective, blinded, case-controlled study. *Journal of Bone and Joint Surgery (Br)*, Jun 2007; 89-B: 790 - 793.
37. Norrish A.R. 'Worthy work. How to set up an advanced training fellowship abroad. *Surgeons News*, Jan 2007 6:1, 46

38. Norrish, A. R., Rao, J & Parker, M.. Prosthesis survivorship and clinical outcome of the Austin Moore hemi- arthroplasty: an 8 year mean follow-up of a consecutive series of 500 patients. *Injury*, 2006 Aug; 37(8): 734-9.
39. Norrish A.R. 'In the footsteps of Dr Livingstone': a report of an advanced training fellowship in Central Africa. *Annals of the Royal College of Surgeons of England*, 2006 (Suppl) 88: 306-307
40. Norrish, A. R., Hanif, M., Sheikh, R. & Gadir, M.. The outcome of lumbar micro-discectomy performed as a day case procedure: a comparison of 67 consecutive patients undergoing surgery on a day case or inpatient basis. *The Journal of One-Day Surgery*. 2005 Vol. 15, No. 1, pg 74-76.
41. Clifton, R., Norrish, A. R., Howell F. R.. Reducing blood loss after total hip arthroplasty: A prospective randomised controlled trial to evaluate the efficacy of temporarily clamping drains. *Hip International*; 2005 15:108-111.
42. Johnston, P., Norrish, A. R., Brammer, T., Walton, N., Hegarty, T. A. & Coleman, N. P.. Reducing methicillin-resistant *Staphylococcal aureus* (MRSA) patient exposure by infection control measures. *Annals of the Royal College of Surgeons of England*. 2005 Mar; 87(2): 123-5.
43. Carey Smith R.L., Basu, R., Norrish, A.R., Porteous, M.J.L. Occupational morbidity in orthopaedic surgeons: a prospective controlled survey of 860 doctors. *Journal of Bone & Joint Surgery (Br)* 2005 Mar; 87-B: 50.

References