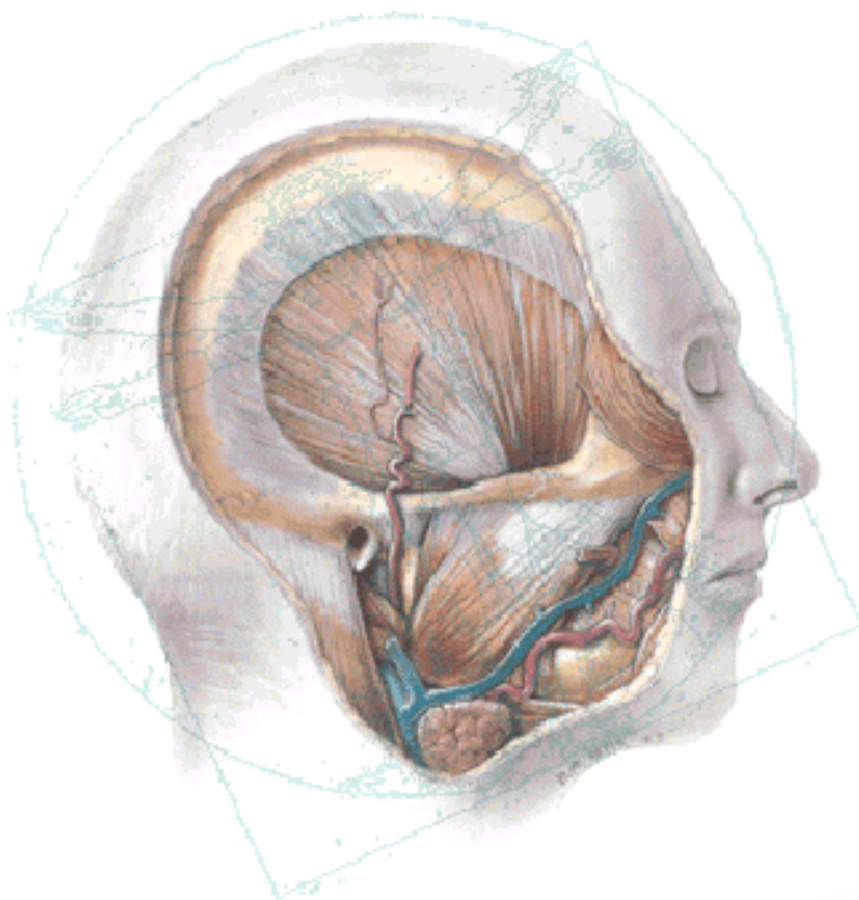


# Curriculum Vitae

Stephen F. Worrall MD, FRCS, FDSRCS, MB ChB (Hons), BDS.

Consultant Oral and Maxillofacial Surgeon (Retired)



I am now retired from all clinical practice. My last position was  
Consultant Oral & Maxillofacial Surgeon  
Bradford Teaching Hospitals NHS Foundation Trust  
Bradford  
BD5 0NA

I currently volunteer with Sue Ryder at Manorlands Hospice  
Oxenhope  
BD22 9HJ

Website: millennium3.org.uk  
Email: sworrall@pm.me

### **Personal information**

- Nationality: British
- Widowed

### **Professional information**

- GMC number: 3282069 I am on the GMC register but relinquished my licence to practice on retirement
  - Revalidated November 2013
  - Last formal appraisal October 2016

### **Summary of qualifications**

- 1979: BDS. The University of Birmingham
- 1983: FDRCS. The Royal College of Surgeons of England
- 1988: MB, ChB (Hons). The University of Birmingham
- 1991: FRCS. The Royal College of Surgeons of Edinburgh
- 1998: MD. The University of Birmingham

### **Education and achievements**

- 1983-1988: The University of Birmingham Medical School
  - Honours in biochemistry, anatomy, physiology & medicine
  - Distinctions in pathological studies and paediatrics
  - 2002: BAOMS Surgery Prize
  - 2005: National Bronze Clinical Excellence Award

## Professional experience

- Having obtained my MD and been a senior lecturer for over 5 years I moved to Bradford in September 2000 in order to help the hospital develop its head and neck cancer unit and achieve Calman-Hine recognition.
- Along with my consultant colleagues I provide a comprehensive oral & maxillofacial service for the population of Bradford, Calderdale and Airedale (approximately 1 million). The main workload of the unit comprises:
  - Maxillofacial trauma
  - Salivary gland surgery
  - TMJ surgery including total joint replacement
  - Dentoalveolar surgery
- I have a broad interest and I am happy to provide care for patients in any of the above categories although my major interest is the use of prosthetic joint replacements for the management of severe and debilitating temporomandibular joint disorders. I am one of only a very small number of UK surgeons routinely offering this service to patients.

## Academic experience

- In addition to writing scientific papers and lecturing I used my academic sessions while a Senior Lecturer to study for my MD thesis entitled “An investigation into the association between cytochrome P450 and glutathione S-transferase detoxification enzymes and human oral squamous cell carcinoma” <http://etheses.bham.ac.uk/31/>. This work took approximately 3 years to complete during which time I performed numerous laboratory based procedures including DNA extraction, PCR and immunohistochemistry. While the project itself was extremely interesting and worthwhile, the most valuable aspect was the insight it gave me into research and scientific methodologies, statistical analysis and the formulation and writing of scientific papers.

## Medicolegal experience

- I am a member of the Faculty of Expert Witnesses. I have attended several specific medico-legal training courses. I have experience in the preparation of medico-legal reports for the courts (approximately 70:30 claimant:defence) and have given evidence in the magistrates, crown and high courts. I abide by the Code of Practice for Experts 2005 and am aware of my responsibilities as an expert as set out in the Civil Procedure Rules CPR part 35.

## Clinical posts held

- September 2000 – March 2017.

Consultant  
Oral & Maxillofacial Surgery Department  
Bradford Hospitals NHS Trust  
Bradford

- January 1995-September 2000

Consultant and Senior Lecturer  
Oral and Maxillofacial Surgery Department  
North Staffordshire Hospital NHS Trust  
Stoke-on-Trent

- January 1992 – December 1994

Senior registrar  
Oral and Maxillofacial Surgery Department  
United Leeds Teaching Hospitals  
Leeds

- August 1990 - December 1991

Registrar  
Oral and Maxillofacial Surgery Department  
Queen Elizabeth Hospital  
Birmingham

- August 1988 – August 1990

House officer and subsequent senior house officer in:  
General medicine and general surgery  
Accident and emergency medicine  
Traumatic orthopaedics  
Plastic and reconstructive surgery  
North Staffordshire Hospital  
Stoke-on-Trent

- August 1981 – August 1983

Registrar  
Oral and Maxillofacial Surgery Department  
The Royal London Hospital

Whitechapel  
London

• August 1980 – August 1981

Senior house officer  
Oral and Maxillofacial Surgery Department  
Queen Mary's Hospital  
Roehampton  
London

## **Administration and management experience**

- 2014 – 2016: Deputy Divisional Clinical Director. Bradford Teaching Hospitals NHSFT
- 2014 – 2016: Clinical Advisor to the Care Quality Commission
- 2013 – 2014: Chairman of Joint Revalidation Committee, Royal College of Surgeons of England
- 2013 - 2014: Clinical Lead, Breast Surgery, Plastic Surgery, Maxillofacial Surgery, Orthodontics & Restorative Dentistry Bradford Teaching Hospitals NHSFT.
- 2012 – 2013: Specialty Advisor Joint Committee of Revalidation, Royal College of Surgeons of England
- 2011 – 2013: Deputy the Associate Medical Director with responsibility for appraisal and revalidation
- 2010 – 2013: Chair Education and CPD Committee, British Association of Oral & Maxillofacial Surgeons
- 2009 – 2011: Member of Council British Association of Oral & Maxillofacial Surgeons
- August 2006 – 2009: Clinical Advisor to the Healthcare Commission
- 2006 – 2010: Clinical Director (Head and Neck) Bradford Teaching Hospitals NHS Foundation Trust
- September 2005: conducted external review of hospital oral & maxillofacial services on the Isle of Wight at the request of Hampshire and the Isle of Wight PCT
- August 2005: local organiser for 1<sup>st</sup> International course on orthognathic surgery and distraction.
- June 2005: local organiser for Intercollegiate FRCS examinations
- 2004: BAOMS representative to DoH for DwSi project
- 2004 – 2006: Honorary Secretary, British Association of Oral & Maxillofacial Surgeons

- 2004 – 2006: lead clinician oral and maxillofacial surgery and orthodontics Bradford Teaching Hospitals NHS Foundation Trust
- 2003 – date: lead clinician, head and neck cancer services, Bradford Teaching Hospitals Foundation NHS Trust
- 2002 – date: external visitor on behalf of Faculty of Dental Surgery Inspection and Recognitions Committee
- 2002- date: Bradford Teaching Hospitals NHS Trust strategic outline case project board member
- 1999-2004: Editorial board member, British Journal of Oral & Maxillofacial Surgery.
- 1999 – date: Member of British Association of Oral & Maxillofacial Surgeons scientific papers committee.
- 1999 – 2000: Chairman North Staffordshire Medical Institute library committee.
- 1999 – 2000: University of Keele Medical School curriculum implementation group member
- 1995- 2000: Audit Chairman, surgical directorate, North Staffordshire Hospital NHS Trust
- 1995- 2000: Board member NHS executive Oncology Information Systems Project
- 1995-1999: Honorary secretary British Association of Oral & Maxillofacial Surgeons Audit Sub-committee.
- 1998-2000: Head and neck cancer lead clinician, North Staffordshire Hospital NHS Trust.
- 1998: British Association of Oral & Maxillofacial Surgeons representative on Relative Values Review group – working with private insurance companies to re-organise private health care fees.

- 1997-2000: Surgical directorate member of North Staffordshire Hospital NHS Trust drugs and therapeutics committee.
- Ex captain in Royal Army Medical Corps (TA). 212 Field Ambulance

### Scientific publications

1. Longstreet J, Worrall SF, O'Kane M. Malignant change in a pleomorphic adenoma. *Dental Update* 1984;**11**:189-190.
2. Worrall SF, Cannell H. Salvage surgery for hyperparathyroidism affecting the jaws. *British Dental Journal* 1985;**159**:368-370.
3. Chambers PA, Worrall SF. Closure of large orocutaneous fistulas in end stage malignant disease. *British Journal of Oral & Maxillofacial Surgery* 1994;**32**:314-315.
4. Worrall SF, Knibbs PJ, Glenwright HD. Methods of reducing bacterial contamination of the atmosphere arising from use of an air-polisher. *British Dental Journal* 1987;**163**:118-119.
5. Worrall SF, Wake MJ. The transcoronoid threaded wire: an aid to mandibular reconstruction. *British Journal of Oral & Maxillofacial Surgery* 1991;**29**:355-356.
6. Worrall SF. Mechanisms, pattern and treatment costs of maxillofacial injuries. *Injury* 1991;**22**:25-28.
7. Worrall SF. A logbook for trainees in oral and maxillofacial surgery [abstract]. *British Journal of Oral & Maxillofacial Surgery* 1991;**29**: 422.
8. Worrall SF. Recurrent odontogenic keratocyst within the temporalis muscle. *British Journal of Oral & Maxillofacial Surgery* 1992;**30**:59-62.
9. Worrall SF. Compulink information exchange (CIX) [letter]. *British Journal of Oral & Maxillofacial Surgery* 1992;**30**: 348.



10. Worrall SF. A logbook for trainees in oral & maxillofacial surgery. 1993. Howmedica International.
11. Worrall SF. Changes in weight and body composition after orthognathic surgery and jaw fractures: a comparison of miniplates and intermaxillary fixation. *British Journal of Oral & Maxillofacial Surgery* 1994;**32**:289-292.
12. Worrall SF. A logbook for trainees in oral & maxillofacial surgery [letter]. *British Journal of Oral & Maxillofacial Surgery* 1994;**32**:197.
13. Worrall SF, Corrigan M. An audit of one surgeon's experience of oral squamous cell carcinoma using computerised malignancy database. *Annals of the Royal College of Surgeons of England* 1995;**77**:332-336.
14. Worrall SF. Oral cancer incidence between 1971 and 1989 [letter]. *British Journal of Oral & Maxillofacial Surgery* 1995;**33**:195-196.
15. Worrall SF. Are postoperative review appointments necessary following uncomplicated minor oral surgery? *British Journal of Oral & Maxillofacial Surgery* 1996;**34**:495-499.
16. Worrall SF. CYP2D6 poor metaboliser genotype and oral squamous cell carcinoma [abstract]. *British Journal of Oral & Maxillofacial Surgery* 1996;**34**: 268-269.
17. Bentley RP, Worrall SF. Carcinoma of the colon with mandible and liver metastases [letter]. *British Journal of Oral & Maxillofacial Surgery* 1997;**35**:221-222.
18. Matthias C, Brockmuhl U, Jahnke V, Jones PW, Hayes JD, Alldersea J, Gilford J, Bailey L, Bath J, Worrall SF. Susceptibility to oral, oropharyngeal and laryngeal carcinomas: Influence of polymorphism in glutathione S-transferase GSTM3. *Proceedings of the International Conference on Glutathione S-transferase a OP-51*.
- 19 Worrall SF, Riden K, & Corrigan AM. UK National Third Molar project: the initial report. *British Journal of Oral & Maxillofacial Surgery* 1998;**36**: 14-18.
19. Matthias C, Bockmuhl U, Jahnke V, Harries L, Wolf CR, Jones PW, Alldersea J, Worrall SF, Hand P, Fryer AA, Strange RC. The glutathione S-transferase GSTP1 polymorphism: effects on

- susceptibility to oral/pharyngeal and laryngeal carcinomas. *Pharmacogenetics* 1998;**8**:1-6.
20. Matthias C, Bockmuhl U, Jahnke V, Jones PW, Hayes J, Alldersea J, Gilford J, Bailey L, Bath J, Worrall SF, Hand P, Fryer AA, Strange RC. Polymorphism in cytochrome P450 CYP2D6, CYP1A1, CYP2E1 and glutathione S-transferase, GSTM1, GSTM3, GSTT1 and susceptibility to tobacco-related cancers: studies in upper aerodigestive tract cancers. *Pharmacogenetics* 1998;**8**:91-100.
  21. Worrall SF. Antibiotic prescribing in third molar surgery [letter]. *British Journal of Oral & Maxillofacial Surgery* 1998;**36**: 74-75.
  22. Nicol S, Worrall SF, Holland T. *Helicobacter pylori* and oral squamous cell carcinoma [abstract]. *British Journal of Oral & Maxillofacial Surgery* 1998;**36**: 232-233.
  23. Worrall SF, Corrigan M, High A, Starr D, Matthias C, Wolf CR, Jones PW, Hand P, Gilford J, Farrell WE, Hoban P, Fryer AA, Strange RC. Susceptibility and outcome in oral cancer: preliminary data showing an association with polymorphism in cytochrome P450 CYP2D6. *Pharmacogenetics* 1998;**8**: 433-439.
  24. Parr, N., Farr, D., Corrigan, M., Worrall, SF. Outcomes Assessment (Trauma) 1998: a general overview [abstract]. *British Journal of Oral & Maxillofacial Surgery* 1999; **37**: 232.
  25. Matthias, C., Jahnke, V., Jones, P.W., Hoban, P.R., Alldersea, J.E., Worrall, S.F., Fryer, A.A., Strange, R.C. Cyclin D1, glutathione S-transferase, and cytochrome P450 genotypes and outcome in patients with upper aerodigestive tract cancers: assessment of the importance of individual genes using multivariate analysis. *Cancer Epidemiology, Biomarkers & Prevention* 1999; **8**: 815-823.
  26. Worrall, SF. An audit of general dental practitioner's referral practice following the distribution of third molar guidelines. *Ann R Coll Surg Engl* 2001; **83**: 61-64
  27. Worrall, SF & Loukota R. The Injured Face. *Emergency* [Abstract] 2001; **7**:82
  28. Worrall, SF. Editorial. *British Journal of Oral & Maxillofacial Surgery* 2002; **40**: 273-4.

29. Shaikh, ZS & Worrall, SF. Epidemiology of facial trauma in a sample of patients aged 1-18 years. *Injury, Int J, Care Injured*. 2003; **33**: 669-671.
30. Worrall SF, Christensen RW, Dollar JV. Alloplastic reconstruction of the TMJ: Treatment of the compromised anatomy. *The TMJ Journal*. 2006; **5**: 1-22.
31. Worrall SF & Christensen RW. Alloplastic Reconstruction of the Temporomandibular Joint in Treatment of Craniofacial Developmental or Congenital Anomalies: A Surgical Case Report. *Surgical Technology International* 2006; **15**: 291-301
32. Amos MJ, Patterson AR, Worrall SF. Septic arthritis of the temporomandibular joint in a 6-year old child. *British Journal of Oral & Maxillofacial Surgery* 2008 Apr;46(3):242-3.
33. Tekeli KM, Agrawal T, Worrall SF. Unusual case of post-traumatic lingual paraesthesia. *British Journal of Oral & Maxillofacial Surgery* 2008 Mar;46(2):157-8.
34. Kanatas, AN Worrall SF. How we do it: postoperative analgesia with a novel indwelling continuous wound infiltration system. *British Journal of Oral & Maxillofacial Surgery* 2010 Mar;48(2):141-142.
35. Kanatas AN, Marshall, A, Worrall SF. One-stage management of ankylosis of the temporomandibular joint with a custom-made total joint replacement system. *British Journal of Oral & Maxillofacial Surgery* 2010 Mar;48(2):156-157.
36. Moran A, Kanatas AN, Worrall SF Re: A new anatomical landmark to simplify temporomandibular joint arthrocentesis. *British Journal of Oral & Maxillofacial Surgery* 2010 Mar;48(4):310-1.
37. Kanatas AN, Jenkins GW, Smith AB, Worrall SF. Changes in pain and mouth opening at 1 year following temporomandibular joint replacement – a prospective study. *British Journal of Oral & Maxillofacial Surgery* 2011;49(6):455-458.
38. Kanatas AN, Needs C, Smith AB, Moran A, Jenkins GW, Worrall SF. Short-term outcomes using the Christensen patient-specific temporomandibular joint implant system: a prospective study. *British Journal of Oral & Maxillofacial Surgery* 2012;50(2):149-153.

39. Idle MR, Lowe D, Rogers SN, Sidebottom AJ, Speculand B, Worrall SF. UK temporomandibular joint replacement database: report on baseline data. *British Journal of Oral & Maxillofacial Surgery* 2014;52(3):203-7.

#### Grants & awards

- British Association of Oral & Maxillofacial Surgeons Surgery Prize 2002
- British Association of Oral & Maxillofacial Surgeons 1995. *The association of helicobacter infection and oral cancer*. £1900
- NHS Executive Locally Organised Research Scheme. 1995. *Prognostic markers in oral squamous cell cancer*. £60,000
- North Staffordshire Hospital Cancer Trust Fund. 1995 *Prognostic markers in oral squamous cell cancer*. £20,000
- British Association of Oral & Maxillofacial Surgeons 1997. *A comparison of 2 postoperative feeding methods following head and neck cancer surgery*. £4000

#### Textbooks

1. Worrall SF. Avoiding complications in minor oral surgery. In: Ward-Booth, P., Hausaman J-E., Schendel, S. (eds). *Maxillofacial Surgery*. Edinburgh: Churchill Livingstone, 1999, 1591-1610.
2. Worrall SF. Impacted wisdom teeth. In: *Clinical Evidence*. London: BMJ Publishing Group, 1999: 101-102
3. Worrall SF. Impacted wisdom teeth. In: *Clinical Evidence (Issue 2)*. London: BMJ Publishing Group, 1999: 510-512
4. Worrall SF. Impacted wisdom teeth. In: *Clinical Evidence (Issue 3)*. London: BMJ Publishing Group, 2000: 618-620

5. Worrall SF. Impacted wisdom teeth. In: Clinical Evidence (Issue 4). London: BMJ Publishing Group, 2000: 758-760
6. Worrall SF. Impacted wisdom teeth. In: Clinical Evidence (Issue 5). London: BMJ Publishing Group, 2001: 936-938
7. Worrall SF. Impacted wisdom teeth. In: Clinical Evidence (Issue 6). London: BMJ Publishing Group, 2001: 1050-1052
8. Worrall SF. Impacted wisdom teeth. In: Clinical Evidence (Issue 7). London: BMJ Publishing Group, 2002: 1244-1247
9. Worrall SF. Maxillofacial Injuries. In: Sherry, Trieu & Templeton (Eds) *Trauma*. Oxford: Oxford University Press, 2003, 169-196

#### **Textbooks reviewed**

- Malignant Tumours of the Mouth Jaws and Salivary Glands by JD Langdon and JM Henk. *Annals of the Royal College of Surgeons of England* 1996:**78**: 74-75
- Surgical pathology of the mouth and jaws by RA Cawson *et al.* *Annals of the Royal College of Surgeons of England* 1996:**78**: 481-482.
- TNM classification of malignant tumours 5e on CD-ROM. *British Journal of Oral & Maxillofacial Surgery* . 2000:**38**: 244.

#### **Presentations to learned societies**

1. Salvage surgery for hyperparathyroidism affecting the jaws. British Association of Oral and Maxillofacial Surgeons annual scientific meeting 1985.
2. Mechanisms, pattern and treatment costs of maxillofacial injuries. Inaugural meeting of the British Trauma Society 1991.
3. Compulink information exchange (CIX). International Association of Surgeons in Training 1992.
4. A window on head and neck malignancy. British Association of Oral and Maxillofacial Surgeons annual scientific meeting 1994.
5. CYP2D6 poor metaboliser genotype and oral squamous cell carcinoma. British Association of Oral and Maxillofacial Surgeons annual scientific meeting 1996.

6. CYP2D6 polymorphisms are associated with an increased risk of oral squamous cell carcinoma. 55<sup>th</sup> scientific meeting of the British Association of Surgical Oncologists 1997.
7. Information in support of clinical audit: head and neck cancer. NHS executive conference “Cancer services: developing the network” 1997.
8. BAOMS Outcomes Assessment (Trauma) 1998. British Association of Oral and Maxillofacial Surgeons annual scientific meeting 1999.
9. Maxillofacial Trauma. Maxillofacial Nurses Conference. British Association of Oral & Maxillofacial Surgeons annual scientific meeting 1999.
10. Statistics past and present. North West Regional Maxillofacial Conference “Changing Mortality” 14-15<sup>th</sup> April 2000 (invited expert speakers from USA and Europe)
11. Surgical management of oral cancer. Regional oncology scientific meeting. 4<sup>th</sup> May 2000
12. Rhead S, Worrall SF. An audit of general dental practitioner’s referral practice following the distribution of third molar guidelines. Partnership for Developing Quality (PDQ) conference (poster) 15<sup>th</sup> 16<sup>th</sup> March 2000
13. Worrall SF, Heath S, Rhead S. An audit of general dental practitioner’s referral practice following the distribution of third molar guidelines. National Institute for Clinical Excellence (NICE) conference (poster) September 2000
14. Shaikh ZS & Worrall SF. The epidemiology of facial trauma in 1-18 year olds. BSDR Conference. Belfast. 2001
15. Loukota R & Worrall SF. The Injured Face. Trauma Care 2001 conference. Edinburgh June 2001.
16. Worrall SF. Medieval Medicine and the Monastery. Yorkshire BDA. Bradford. November 2001.
17. Worrall SF. Temporomandibular Joint Surgery. Association of Oral and Maxillofacial Surgeons of India annual scientific meeting, Nagpur November 2004.

18. Worrall SF. Reconstruction of the TMJ using the Christensen Implant System. Association of Oral and Maxillofacial Surgeons of India annual scientific meeting, Jaipur December 2005.
19. Loney E & Worrall SF. From click to replacement. British Society of Head & Neck Imaging. Royal Society of Medicine. London July 2014.

#### **Computer programs designed and written**

1. A logbook for trainees in oral and maxillofacial surgery – used by large numbers of trainees to record their surgical procedures.
2. Head and neck malignancy database – in use in many UK units for auditing head and neck practice.
3. Cleft lip and palate database – commissioned by the UK Cleft group and used as the standard audit and data collection program.
4. Craniofacial database – commissioned by the Birmingham Craniofacial Unit to enable them to audit the incidence of congenital and acquired craniofacial anomalies and the outcome following treatment.
5. Bradford Hospitals NHS Trust oral and maxillofacial surgery and orthodontics website

#### **Teaching lecturing and examination experience**

- Royal College of Surgeons of Edinburgh facilitator for Educating Consultants courses
- University of Leeds Medical School undergraduate interview panel member
- Intercollegiate FRCS examiner
- External examiner for PhD University of Manchester

- External examiner for MD University of Leeds
- External referee for Wellcome Trust grant application
- External supervisor for University of Birmingham Dental School final year student project: The Psychological Sequelae of Paediatric Maxillofacial Trauma.
- University of Keele MRCS/FRCS part 2-course lecturer.
- Universities of Birmingham and Leeds MFDSRCS course lecturer.
- Universities of Birmingham and Leeds trauma skills course faculty.
- Organisation of British Association of Oral and Maxillofacial Surgeons Annual Scientific Meeting workshops on distraction osteogenesis and facial implants – June 1999
- Organisation of West Midlands’s regional trainees study days.
- Section 63 postgraduate medical and dental practitioner lectures.
- Lectures to professions allied to medicine and nursing staff.

#### **Recent training/CME courses attended**

- British Association of Head & Neck Oncologists. Annual Scientific Meeting London April 1997
- 5<sup>th</sup> International Cancer Convention. London September 1997.
- British Association of Surgical Oncologists. Annual Scientific Meeting. London November 1997.
- British Association of Head & Neck Oncologists. National Head & Neck Cancer Data Meeting London March 1998



- Evidence based management of salivary gland disease. NOTO. Freeman Hospital, Newcastle-upon-Tyne. November 1998.
- Educating Consultants. Royal College of Surgeons of Edinburgh. December 1998.
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. Birmingham June 1999
- British Association of Head & Neck Oncologists annual scientific meeting. London May 2000
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. Killarney June 2002
- Indian Association of Oral and Maxillofacial Surgeons annual scientific meeting. Dharwad, November 2003
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. London June 2004
- Indian Association of Oral and Maxillofacial Surgeons annual scientific meeting. Nagpur, November 2004
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. Gateshead, June 2005
- Indian Association of Oral and Maxillofacial Surgeons annual scientific meeting. Jaipur, November 2005
- International Association of Oral & Maxillofacial Surgeons annual scientific meeting. Bangalore, November 2007 (session chairman)
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. Cardiff, June 2008
- British Association of Oral and Maxillofacial Surgeons annual scientific meeting. Bournemouth, June 2009
- University of Bradford School of Management, management and leadership course – 2011 – 2012
- European Association of TMJ Surgeons scientific meeting, June 2013, Oxford.

- European Association of Craniomaxillofacial Surgeons, London. September 2016. Organised and chaired the TMJ symposium and chaired reconstruction/TMJ session

### **Hobbies and interests**

- Foreign travel particularly the Middle East, India & Nepal but also many European destinations including Iceland
- The inland waterways and boating.
- HiFi – especially vinyl and valve equipment
- Photography and digital image processing