



# ML Experts Consulting

## **Professor Neeraj Saxena**

MBBS, MD, MSc (Pain Management), FRCA, FFPMRCA

**Consultant in Anaesthesia & Pain Management,**  
Cwm Taf University Health Board  
(Royal Glamorgan and Prince Charles hospitals)

**Clinical Lead,**  
Inpatient Pain management,  
Cwm Taf University Health Board

**Clinical Senior Lecturer,**  
Neurosciences, Cardiff University

ML Experts Consulting  
Fairview  
Parkhill  
Whitecroft  
GL15 4PQ

0207 118 1134  
reports@mlecl.com

### **Profile**

Currently as a consultant in anaesthesia and pain medicine my practice ranges from anaesthetising for a wide range of surgical cases with regular sessions in ENT and Orthopaedics. Out of hours, I provide consultant cover for obstetric anaesthesia too.

#### **GMC details**

No. 6062060  
Full licence to practice

## QUALIFICATIONS

2012	<b>FFPMRCA</b>
2011	<b>MSc</b> (Pain Management)
2010	<b>CCT</b> (Anaesthesia) ; Royal College of Anaesthetists
2006	<b>FRCA</b> ; Royal College of Anaesthetists (London)
2003	<b>MD</b> ; (Anaesthetics, Intensive Care & Pain Medicine); Delhi University, India
1999	<b>MBBS</b> ; Delhi University, India

## CAREER SUMMARY

May' 16- current	<b>Professor (Visiting), University of South Wales</b>
Apr' 14- current	<b>NISCHR Clinical Research Fellowship</b>
Dec' 13- current	<b>Clinical Senior Lecturer</b> , Neurosciences, Cardiff University
June' 12- current	<b>Consultant</b> , Cwm Taf UHB, Llanstrisant (Locum Jun'12- Dec' 12)
June '10 – June' 12	<b>Clinical Lecturer</b> and Locum Consultant ; Cardiff University and Cardiff and Vale University Health Board (University Hospital of Wales – (UHW), Cardiff);
2005- 2010	<b>Specialist training-</b> Anaesthetics- South Wales' rotation Including Advanced pain training
2003- 2005	<b>SHO training</b> – Anaesthetics University Hospitals of Leicester North Cheshire hospitals, Warrington
2003	<b>Senior Registrar</b> – Neuroanaesthesia & Critical Care Institute of Human Behaviour & Allied Sciences (IHBAS), Delhi, INDIA University College of Medical Sciences (UCMS), Delhi. India
1999- 2002	<b>PG trainee (SHO/ SpR level)</b> – Anaesthetics, Intensive Care & Pain Medicine ; UCMS, Delhi, India
1999	<b>Senior House Officer</b> – Burns & Plastic Surgery; UCMS, Delhi, India
1998	<b>House Officer</b> ; UCMS, Delhi, India.

## MEMBERSHIPS

- British Medical Association
- British Pain Society
- International Association on the study of Pain
- Welsh Pain Society
- Indian Society of Anaesthesiologists
- Medical Protection Society

## CLINICAL EXPERIENCE

Currently as a consultant in anaesthesia and pain medicine my practice ranges from anaesthetising for a wide range of surgical cases with regular sessions in ENT, urology and Orthopaedics. Out of hours, I provide consultant cover for all surgical specialties including obstetric anaesthesia.

My specialist interest and skills include acute and chronic pain management. I have 2-3 pain clinics and at least 1 procedure list every week. I am the clinical lead for inpatient pain management and manage service delivery and service development in acute pain. In chronic pain setting while I deal with all types of pain conditions, I have a special interest in managing those with spinal pain and chronic pelvic pain.

## Awards and Publications

- |             |                                |                                                                                                                                                                                                                                                             |
|-------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2013</b> | <b>First prize (co-author)</b> | <u>Oral presentation</u> , 'N Saxena, S Muthukumaraswamy, A Diuko AR Wilkes, KD Singh, RG Wise, JE Hall. Alterations of stimulus induced gamma oscillatory activity during propofol sedation' The Society of Anaesthetists of Wales; Spring meeting, Brecon |
| <b>2009</b> | <b>Second prize</b>            | <u>Oral presentation</u> , 'The opioid effects on neurovascular coupling in the human brain investigated using EEG and MRI' at The Society of Anaesthetists of Wales; Spring meeting, Brecon.                                                               |
| <b>2008</b> | <b>First prize</b>             | <u>Poster presentation</u> , 'Effectiveness of an Outpatient multidisciplinary pain management programme- Gwent experience' at the annual Welsh Pain Society meeting-2008.                                                                                  |
| <b>2008</b> | <b>Third prize</b>             | <u>Poster presentation</u> , 'Chronic low back pain; What do doctors think!' at the annual Welsh Pain Society meeting-2008.                                                                                                                                 |
| <b>2008</b> | <b>Second prize</b>            | <u>Oral presentation</u> , 'Chronic low back pain; What doctors' think' at the Maelor Pain management prize competition.                                                                                                                                    |
| <b>2007</b> | <b>First prize</b>             | <u>Poster presentation</u> 'Drug efficacy and patient satisfaction survey of chronic pain patients on Buprenorphine patch.' at the annual Welsh Pain Society meeting.                                                                                       |

## RESEARCH GRANTS

- 2016 University of South Wales: Research and Business engagement investment scheme- (£6000 as collaborator)
- 2015 Welsh Pain society- research seed corn funding (£3000)
- 2014 NISCHR equipment bid (£1500)
- 2014 NISCHR Clinical research time (£ 74157)
- 2013 Orion pharmaceuticals- scientific grant: Dissociating analgesia and sedation with FMRI (£ 20000)
- 2012 NIAA: AAGBI small research grants: Understanding the mechanisms of sedation: Effects of GABAergic and non GABAergic sedatives (£15000)

## PUBLICATIONS including Conference abstracts

1. Muthukumaraswamy SD, Shaw AD, Jackson LE, Hall J, Moran R, **Saxena N**. Evidence that Subanesthetic Doses of Ketamine Cause Sustained Disruptions of NMDA and AMPA-Mediated Frontoparietal Connectivity in Humans. *J Neurosci* 2015; 35(33): 11694-706.
2. Shaw AD, **Saxena N**, L EJ, Hall JE, Singh KD, Muthukumaraswamy SD. Ketamine amplifies induced gamma frequency oscillations in the human cerebral cortex. *Eur Neuropsychopharmacol* 2015; 25(8): 1136-46.
3. EA Warnert, K Murphy, **N Saxena**, N Tailor, NS Jenkins, JE Hall, RG Wise. In vivo assessment of human brainstem cerebrovascular function: a multi-inversion time pulsed arterial spin labelling study. *J Cereb Blood Flow Metab* 2014; 34: 956-963.
4. T Gili , **N Saxena**, A Diukova, K Murphy, JE Hall, RG Wise. The thalamus and brainstem act as key hubs in alterations of human brain network connectivity induced by mild propofol sedation. *J Neurosci* 2013; 33: 4024-31.
5. **N Saxena**, SD Muthukumaraswamy, A Diukova , K Singh, J Hall, R Wise. Enhanced Stimulus-Induced Gamma Activity in Humans during Propofol-Induced Sedation. *PLoS One* 2013; 8: e57685.
6. AD Harris, V Robertson, D Huckle, **N Saxena**, C Evans, K Murphy, J Hall, D Bailey, G Mitsis, R Edden, R Wise. Temporal dynamics of lactate concentration in the human brain during acute inspiratory hypoxia.. *J Magn Reson Imaging* 2013; 37 (3): 739-45.
7. AD Harris, K Murphy, CM Diaz, **N Saxena**, J Hall, TT Liu, R Wise. Cerebral blood flow response to acute hypoxic hypoxia. *NMR Biomed* 2013; 26: 1844- 1852.
8. **N Saxena**. Airway management plan in patients with difficult airways having

- regional anesthesia. *Journal of Anaesthesiology Clinical Pharmacology* 2013; 29: 558- 560.
9. **N Saxena**, S Kadambande, S Khot. From presentation to journal publication: the journey of our Society's ASM abstracts. *Pain news* 2012: 10(1) 49-52.
  10. A Khurana, A Guha, **N Saxena**, S Pugh, S Ahuja. Comparison of aprotinin and tranexamic acid in adult scoliosis correction surgery. *Eur Spine J* 2012: 21: 1121-6.
  11. RAE Edden, A Harris, K Murphy, J Evans, **N Saxena**, J Hall, D Bailey, R Wise. Edited MRS is sensitive to changes in lactate concentration during inspiratory hypoxia. *J Magn Reson Imaging* 2010; 32: 320-5.
  12. **N Saxena**, AJ Parry-Jones. Traumatic haemorrhage into an occult phaeochromocytoma: presentation and management in a patient with septic shock. *Anaesthesia* 2008; 63: 428-32.
  13. **N Saxena**, I Greenway, LJ Harding, NG Davies. A complication of the 'atraumatic inserter' of the Tracoe experec percutaneous dilation tracheostomy set. *Anaesthesia* 2008; 63: 1377-9.
  14. M Kumar, **N Saxena**, AK Saxena. The effect of a colloid or crystalloid preload on hypotension caused by induction of anaesthesia with propofol and fentanyl. *Journal of Anaesthesiology Clinical Pharmacology* 2008; 24: 409-12.
  15. **N Saxena**, M Sharma. Cerebral infarction following carotid arterial injection of adrenaline. *Can J Anaesth* 2005; 52: 119.
  16. **N Saxena**, S Chaudhary. Open indirect cardiac massage in neonate. *Indian J Pediatr* 2005; 72: 253-5.
  17. **N Saxena**, S Ahuja. Laryngeal mask cuff damage during interscalene block. *Anaesthesia* 2003; 58: 600.
  18. AK Saxena, **N Saxena**, B Aggarwal, AK Sethi. An unusual complication of sinus arrest following right-sided stellate ganglion block: a case report. *Pain Pract* 2004; 4: 245-8.
  19. Richmond L, Jackson L, Shaw A, Hall J, **Saxena N**, Muthukumaraswamy S. The neural, oscillatory, correlates of sedative ketamine infusion: a pharmaco-MEG (magnetoencephalographic) study. *European Journal of Anaesthesiology* 2015; 32(e-Supplement 53): 183.
  20. J Clark, A Short, M Chawathe, J Francis, **N Saxena**, D Bogod, V Girotra. Development of a realistic epidural simulator - a translational research project. *Anaesthesia* 2014; 69 (Supp 4): 17
  21. S Muthukumaraswamy, LE Jackson, **N Saxena**, A Shaw, RG Wise, JE Hall.

Investigating glutamatergic neuro-transmission in the human brain using ketamine sedation. BJA 2014; 113: 328- 9 P.

22. **N Saxena**, S Muthukumaraswamy, A Diukova, AR Wilkes, KD Singh, RG Wise, JE Hall. Alterations of stimulus-induced gamma oscillatory activity during propofol sedation. BJA 2013; 110: 870-1 P
23. **N Saxena**, M Kumar, N Tailor, T Wilkes and I Hodzovic. Comparing performance of three non-rebreathing Oxygen masks - Topout, Intersurgical™ and Flexicare™. A randomised, cross-over volunteer study. BJA 2012 ; 109(4): 665-6P
24. M Kumar, **N Saxena**, T Wilkes, I Hodzovic. Evaluation of three non-rebreathing Oxygen delivery masks. BJA 2012 ; 109(4): 660P
25. **N Saxena**, S Jeffs, O Hughes. Do Pain Management Programmes lead to permanent changes? Long-term effectiveness of an outpatient interdisciplinary PMP: an observational study. World Congress on Pain proceedings, 2012
26. **N Saxena**, S Kadambande, S Khot. From presentation to journal publication: the journey of British Pain Society- Annual scientific meeting abstracts. British Journal of Pain 2012; 6(2)- 96.
27. **N Saxena**, A Diukova, M Venzi, T Gili, D Huckle, S Bell, RG Wise, JE Hall. Endogenous brain oscillations during sedation: Initial results of a MEG and FMRI study. BJA 2012; 108: 721P
28. **N Saxena**, E Lewis; Anaesthetic interventions for vaginal twin deliveries; role of epidural analgesia. IJOA, 2010; S42
29. T Gili, **N Saxena**, A Diukova, K Murphy, J Hall, R Wise. Physiological noise correction may help to detect changes in brain activity during mild sedation. (OHBM proceedings 2012)
30. T Gili, **N Saxena**, A Diukova, K Murphy, J Hall, R Wise. Mild sedation alters eigenvector centrality of BOLD FMRI in the thalamus and brainstem(OHBM proceedings 2012)
31. T Gili, **N Saxena**, A Diukova, K Murphy, J Hall, R Wise. Mapping alterations in cortical and subcortical functional connectivity induced by light sedation. (OHBM proceedings 2012)
32. T Gili, **N Saxena**, A Diukova, K Murphy, J Hall, R Wise. Mapping alterations in cortical and subcortical functional connectivity induced by light sedation. (ISMRM proceedings 2012)
33. AD Harris, K Murphy, C Diaz, **N Saxena**, J Hall, TT Liu, RG Wise. Cerebral blood flow response to hypoxia.(ISMRM proceedings 2012)
34. T Gili, **N Saxena**, A Diukova, K Murphy, J Hall, R Wise. Mild sedation alters

eigenvector centrality of BOLD fMRI in the thalamus and brainstem. (OHBM proceedings 2012)

35. AD Harris, RAE Edden, K Murphy, CJ Evans, CY Poon, **N Saxena**, J Hall, TT Liu, DM Bailey, RG Wise. Hemodynamic and metabolic response to hypoxia. ISMRM annual meeting proceedings 2010.
36. S Wartan, **N Saxena**, T Ivanova- Stoilova. The challenge of female pelvic pain- The first Welsh pelvic pain clinic. World Congress on Pain proceedings 2010
37. A Diukova, A Jolly, **N Saxena**, K Murphy, CJ Evans, JE Hall, RG Wise. The opioid effects on neurovascular coupling in the human brain investigated using EEG and MRI- Research; British Chapter of the ISMRM conference proceedings, Cardiff, 2009.
38. S Khot, A Taylor, **N Saxena**, G Knox. Chronic low back pain: What doctors think? BPS ASM proceedings 2007
39. AR Guha, A Khurana, **N Saxena**, S Pugh, A Jones, J Howes, PR Davies, S Ahuja. The effect of blood conservation measures in adult scoliosis correction surgery. JBJS 2008.91-B(S3) -482.
40. **N Saxena**, M Kumar, A Kumar. Effect of fluid therapy on haemodynamic changes induced by propofol and fentanyl. Research Society of Anaesthesiology Clinical Pharmacology (RSACP) Conference proceedings, 2002.
41. **N Saxena**, M Sharma, KK Mishra, A Kumar. Comparative evaluation of the effect of glycopyrrolate with thiopentone or propofol, for modified ECT on cardiovascular parameters and seizure characteristics. ISA-GOLDCON proceedings-2002.

## RESEARCH

Ongoing (2009 onwards) I have been actively involved in major neuroimaging research projects in collaboration with Cardiff University Brain Research & Imaging Centre (CUBRIC) both during my term as a neurosciences research associate, as a Clinical Lecturer (2010-12) and now as a Senior Lecturer in Neurosciences.

The main themes are

- Using multimodal neuroimaging to investigate mechanisms of sedation
- Physiological challenges (hypoxia, hypercarbia) and its effects on neurophysiology.

### Role of GABA in sedation

- Multimodal neuroimaging study involving magnetoencephalography, fMRI, EEG and MR spectroscopy, investigating the role of GABA in propofol induced sedation.

- Comparing GABAergic (propofol) drugs and non GABAergic (dexmedetomidine) drugs in producing sedation and pain perception.

2011-12 **Glutamate modulation and neurophysiological correlates. Ketamine study with MEG**

- Two papers published.

**My other research includes:**

**Comparison of oxygen delivery from different face masks in exercising humans**

- 2012
- Research using a model of high oxygen consumption (human volunteers exercising on a fixed resistance bicycle ergometer).
  - Comparing oxygen delivery efficiency of two commonly used face masks and a novel mask
  - Two abstracts presented at the Anaesthetic research society meeting, Aberdeen and one presented at Society of Anaesthetists of Wales, 2012

**Training needs assessment of advanced pain trainees and consultants in psychosocial skills**

- Online survey
- Publication underway

**Publication rate of abstracts presented at the British Pain Society – scientific meetings**

- Presented (poster) at the British Pain Society – meeting, Liverpool, 2012
- Abstract in the British Pain Journal
- Published as a full article in Pain News

2009-11 **The opioid effects on neurovascular coupling in the human brain investigated using EEG and MRI**

- As an oral presentation at the Society of Anaesthetists of Wales; Spring meeting, Brecon, 2009 (won the second prize).
- It was also presented (by co-author) as an oral presentation at the annual ESA conference, Milan, 2009 and won the third prize.
- It was also presented at the British Chapter of the ISMRM conference, Cardiff, 2009.

2010-11 **Haemodynamic and Metabolic response to hypoxia**

- Use of edited MR spectroscopy to detect lactate changes in the human brain
- Presented (by co-author) at ISMRM conference, Stockholm, 2010
- Three related publications

2008-10 **Outcome of patients attending the outpatient pain management program (Gwent).**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- We found that there was a significant improvement in the pain, functional and quality of life indicators following the PMP up to 1 year after the



programme.

- Presented at the Welsh Pain Society meeting.
- Long term outcomes (mean of 4 years) show a return to baseline
- Completed MSc dissertation on this area
- Presented (poster) at World Congress on Pain, Milan, 2012

**2007      Acidosis after cardiac surgery.**

- I was involved at all stages, including conception, data collection and analysis.
- Factors contributing to acidosis after cardiac surgery;
- 4 month long prospective audit.
- We found no effect of fluid used (crystalloid/ colloid) or the type of surgery (on pump/ off-pump) on post-op acidosis.

**2006      Autologous blood transfusion requirements after scoliosis correction surgery;**

- I was involved at all stages, including data collection, analysis and presentation.
- A retrospective audit of the effect of blood conservation strategies with special monitoring on blood transfusion requirements.
- We found a significant reduction in homologous blood transfusion requirements following our blood conservation strategies.
- Published
- Presented at local Clinical Governance meeting
- Presented at the Society of Anaesthetists of Wales; Spring meeting, Brecon, 2008
- It was also presented as an oral presentation by the orthopaedic surgeons at
  - Britspine, Belfast 2008
  - BOA Annual congress, Liverpool , September 2008
  - British Scoliosis Society annual meeting, London, September 2008.

**2003      Brain stem auditory evoked responses following the administration of intrathecal midazolam in patients with chronic mechanical low back pain.**

- A prospective randomized controlled study (India 2003).
- My role in this research project involved patient selection and being a blinded observer in assessment of response.

**2002      Comparative evaluation of the effect of glycopyrrolate with thiopentone or propofol, for modified ECT**

- A prospective randomized controlled study. I was involved in this as the chief researcher and was involved in all stages of planning and conduct of this study.
- We found that glycopyrrolate causes a hyperdynamic response following ECT and may also reduce the seizure duration.
- Presented at the ISA-GOLDCON-2002 (National annual conference), Coimbatore, India (oral presentation)

2000 - 02      **Effect of fluid therapy on haemodynamic changes induced by propofol and fentanyl; A prospective randomized controlled study.**

- This was the area of research for my clinical MD (Anaesthesia).
- I was involved in all its stages under the supervision of my guide.
- We found that neither colloid nor crystalloid pre-administration affects the degree or duration of hypotension caused by anaesthetic induction with propofol and fentanyl.
- Presented at Research Society of Anaesthesiology Clinical Pharmacology (RSACP) Conference, 2002, Bhopal, India (oral presentation).
- Published in Journal of Anaesthesiology Clinical Pharmacology

## CLINICAL AUDITS

2013      **Pain relief after total knee arthroplasties**

- I led and supervised my trainees and pain nurses in this audit
- Pain scores were quite high on day 2 and 3 despite interventions
- Local anaesthetic infiltration was an independent risk factor for high pain scores on day 2

2009      **Anaesthetic intervention in women having twin deliveries at Singleton hospital.**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- We found a high incidence of general anaesthetic requirement in women who did not have epidurals for labour.
- Presented at the OAA meeting, Newcastle, 2010

2008      **Chronic pelvic pain in women**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- Patient characteristics and management outcomes in women with chronic pelvic pain attending the pain clinic at Royal Gwent hospital, Newport.
- Presented at the World Congress on Pain, 2010 (poster)

2007      **Chronic low back pain; What doctors think!**

- I was involved in data collection, analysis and presentation.
- Postal questionnaire survey of GPs in South Wales, which showed that GPs still needed education and guidance about management of chronic, non-specific low back pain
- Presented at British Pain Society, Annual Scientific meeting, Liverpool, April 2008 (poster)
- Presented at North Wales Pain study day, Wrexham, June 2008. (oral presentation)
- Presented at Welsh Pain Society meeting, 2007 (poster)

2007      **Early epidural for twin deliveries' audit**

- I was involved at all stages, including conception, data collection, analysis and presentation.

- A prospective audit of timing of epidurals in high risk and low risk obstetric patients and its outcome.
- We found that early epidurals did not adversely affect the outcomes.
- Presented at the OAA meeting, Belfast, 2008

2007 **Cardiac arrest audit;**

- I was involved at all stages, including data collection and analysis.
- A re-audit evaluating the impact of Early warning scoring systems on management of patients in hospital (RGH) wards.
- The audit showed that improvements had been made following implementation of EWS but there was further scope for improvement and such recommendations were made.
- Presented at local Clinical Governance meeting

2007 **Tracheostomies in ICU**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- A prospective audit about the tracheostomies done in patients in ICU.
- We found that we met all the RCOA standards and had a better survival in the patients compared to the overall ICU mortality, possibly suggesting a better patient selection.
- Presented at local Clinical Governance meeting

2006 **Resuscitation guidelines' awareness survey.**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- Local departmental questionnaire survey.
- We found that most anaesthetists were not well aware of the changes in guidelines.
- This led to initiation of regular resuscitation updates in the department.
- Presented at local Clinical Governance meeting.

2006 **Drug efficacy and patient satisfaction survey of chronic pain patients on Pregabalin.**

- I was involved at all stages, including designing, data collection, analysis and presentation.
- A postal questionnaire, service evaluation survey.
- Presented at the local pain meeting
- Presented at Welsh Pain Society meeting, 2007

2006 **Drug efficacy and patient satisfaction survey of chronic pain patients on Buprenorphine patch.**

- I was involved at all stages, including conception, data collection, analysis and presentation.
- A postal questionnaire service evaluation survey.
- Presented at the local pain meeting
- Presented at Welsh Pain Society meeting, 2007

- 2005    **Testing of neuraxial blocks prior to caesarean section.**
- I was involved at all stages, including conception, data collection, analysis and presentation.
  - We found that a majority of the anaesthetists were not following the local and national guidelines.
  - Our audit led to the introduction of new anaesthetic charts which prompted/ reminded anaesthetists to complete and document the testing.
  - Presented at local Clinical Governance meeting
  - Presented at South Wales Obstetric forum, 2006
  - Presented at the Society of Anaesthetists of Wales meeting, 2006
- 2004    **Practice of chest auscultation following tracheal intubation.**
- I was involved at all stages, including conception, data collection, analysis and presentation.
  - We found that very few anaesthetists routinely auscultated the patients' chests after tracheal intubation.
  - Presented at local Clinical Governance meeting.
- 2004    **Audit of glove wearing as a part of universal precautions.**
- I was involved at all stages, including data collection, analysis and presentation.
  - We found that only 10% anaesthetists followed AAGBI/ RCOA guidelines and made appropriate recommendations.
  - Presented at local Clinical Governance meeting.
- 2003    **Comparison of the use of LMA versus ETT for total abdominal hysterectomies.**
- I was involved in data collection, analysis and presentation
  - We found no difference in the incidence of complications between the groups.
  - Presented at local Clinical Governance meeting.
- 2003    **Unplanned admissions after day surgery.**
- I was involved in the concept, data collection, analysis and presentation.
  - We found a higher admission rate than that proposed by the RCOA.
  - Presented at local Clinical Governance meeting.
  - Presented at GAT meeting, 2004.

## **PRESENTATIONS (not in chronological order)**

### **Invited talks/ lectures**

1. Royal College of General Practitioners: South East Wales Faculty. NICE update. **Neuropathic pain management.** 2014
2. Royal College of Anaesthetists – Jubilee Current Concepts Symposium 2013: Rising stars in anaesthesia, pain and critical care, London- **Depth of sedation and anaesthesia: What does neuroimaging tell us ?**

3. **Anaesthesia Post fellowship study day, Cardiff, 2013- Anaesthesia and consciousness: Insights from neuroimaging.**
4. **Do pain management programmes lead to permanent changes?** MSc Alumni annual meeting, Cardiff, 2012

#### International/ National

1. **Endogenous brain oscillations during sedation: Initial results of a MEG and FMRI study.**  
Research, oral: Anaesthetic research society, London, 2011  
SAW meeting, Brecon, March 2012
2. **Unplanned admissions after day surgery-**  
Audit poster; GAT Scientific Committee meeting, Portsmouth, 2004
3. **Testing of neuraxial blocks prior to Caesarean Sections**  
Audit poster; The Society of Anaesthetists of Wales; Spring meeting, Brecon, 2006  
Oral-presentation; South Wales obstetric Anaesthetists' Forum, Bridgend, 2006
4. **Effect of fluid therapy on haemodynamic changes induced by propofol and fentanyl**  
Research paper, oral presentation; Research Society of Anaesthesiology Clinical Pharmacology (RSACP) Conference, Bhopal, India, 2002
5. **Comparative evaluation of the effect of glycopyrrolate with thiopentone or propofol, for modified ECT on cardiovascular parameters and seizure characteristics.**  
Research paper, oral presentation; ISA-GOLDCON (National annual conference), Coimbatore, India, 2002
6. **Satisfaction survey of chronic pain patients on Pregabalin**  
Audit poster; Welsh Pain Society meeting, Annual Scientific meeting, Llandudno, 2007
7. **Drug efficacy and patient satisfaction survey of chronic pain patients on Buprenorphine patch-**  
Audit poster; Welsh Pain Society meeting, Annual Scientific meeting, Llandudno, 2007
8. **Traumatic haemorrhage into an occult pheochromocytoma in a critically ill patient; diagnosis and management**  
Case report poster; The Society of Anaesthetists of Wales; Spring meeting, Brecon, 2008
9. **Use of homologous blood products in adult scoliosis correction surgery**  
Research poster; The Society of Anaesthetists of Wales; Spring meeting, Brecon, 2008

10. **Chronic low back pain; What doctors think!**  
Survey Poster; British Pain Society, Annual Scientific meeting, Liverpool, 2007.  
Oral presentation; North Wales Pain study day, Wrexham, 2008.  
Poster; Welsh Pain Society meeting- 2007.
11. **Role of early epidural for labour analgesia**  
Audit poster; Obstetric anaesthetists' association- ASM, Belfast, 2008.
12. **Effectiveness of an Outpatient multidisciplinary pain management programme- Gwent experience.**  
Audit poster; Welsh Pain Society Meeting, 2008.
13. **The opioid effects on neurovascular coupling in the human brain investigated using EEG and MRI.**  
Research paper, Oral presentation at the Society of Anaesthetists of Wales; Spring meeting, Brecon, 2009 (won the second prize). Poster, British Chapter of the ISMRM conference, Cardiff, 2009.
14. **Management of a patient with severe coronary artery disease, abdominal aortic aneurysm and a phaeochromocytoma.**  
Case report, Oral presentation; Society of Anaesthetists of Wales; Spring meeting, Brecon, 2009.
15. **Haemodynamic and Metabolic response to hypoxia**  
Research poster; Presented (by co-author) at ISMRM conference, Stockholm, 2010
16. **Anaesthetic interventions for vaginal twin deliveries; role of epidural analgesia**  
Audit Poster; Presented at Obstetric anaesthetists' association- ASM, Newcastle, 2010.

#### **Local**

17. **Unplanned admissions after day surgery**  
Audit, oral presentation, Warrington Hospital, 2004.
18. **Comparison of the use of LMA versus ETT for total abdominal hysterectomies.**  
Audit, oral presentation, Warrington Hospital, 2004.
19. **Audit of glove wearing as a part of universal precautions**  
Audit, oral presentation, Pilgrim Hospital, Boston, 2005
20. **Practice of chest auscultation following tracheal intubation**  
Audit, oral presentation, Pilgrim Hospital, Boston, 2005
21. **Visual experiences of patients undergoing cataract surgery**  
Audit, oral presentation , Royal Glamorgan Hospital, 2006.

22. **Testing of neuraxial blocks prior to caesarean section**  
Audit, oral presentation Royal Glamorgan Hospital, 2006.
23. **Resuscitation guidelines' awareness survey**  
Audit, oral presentation, University Hospital of Wales, 2007.
24. **Postoperative airway swelling requiring an emergency tracheostomy**  
Case report, oral presentation, University Hospital of Wales, 2007
25. **Chronobiology and anaesthesia.**  
Review of literature, oral presentation; Royal Gwent Hospital, 2007.
26. **Tracheostomies in ICU patients at RGH**  
Audit, oral presentation; Royal Gwent Hospital, 2008.

## TEACHING EXPERIENCE

I have attended the 'How to teach' courses run by the RCOA and the Welsh Deanery and 'Training the trainers' simulation course (Bristol, Sep 2012) and incorporated the training in my practice.

### GP and other specialists' teaching

- I am frequently invited to provide updates and refreshers to our primary care colleagues and those in other specialities.

### Medical students teaching

In the past and till recently, as a Clinical Lecturer, I have been involved with medical students' teaching including

- Lecture- Cerebral blood flow and regulation for 3<sup>rd</sup> year medical students
- Clinical skills' course for 3<sup>rd</sup> year medical students
- Acute pain management for 3<sup>rd</sup> year medical students

### Supervisory role/ In operating theatre teaching sessions

I regularly teach junior trainees and medical students during my clinical sessions (over 350 cases in SPR logbook)

### FRCA teaching program

- Organized/ co-ordinated the weekly teaching program at Royal Gwent hospital for 3 months
- Included allocation of trainee presentations, overseeing presentations, preparation of MCQ's, troubleshooting, SAQ preparation and viva practice

### Presentations at various FRCA teaching/ departmental teaching sessions

- Pain relief after thoracic surgery.
- Upper and lower limb nerve blocks.

- Recombinant factor 7a.
- Stress ulcer prophylaxis.
- Respiratory physiology.
- 'Pancreatitis' and 'Common Poisons'
- Vaporizers

These are apart from the various teaching activities I participated in my previous institutes, for postgraduate and undergraduate students, nurses and paramedics.

## MANAGEMENT, ORGANIZATIONAL AND LEADERSHIP EXPERIENCE

**Current**      **SwNAP-** South Wales network of acute pain teams; I have coordinated and led the development of a clinical network of acute pain teams in South Wales to standardise the delivery of acute pain services in the region in accordance with the best available practice guidance.  
Organised the 1<sup>st</sup> SwNAP Acute Pain study day at Royal Glamorgan Hospital in May 2014 and  
2<sup>nd</sup> SwNAP Acute Pain Study in May 2015

I am currently the Honorary Secretary of SwNAP

### **Welsh Pain Society**

I am currently on the council of the WPS as the elected treasurer.

### **Pain clinic services**

**2013**      • As the clinical lead of inpatient pain services i am responsible for the delivery and service development.

### **NASGBI- (Neuroanaesthesia society of great Britain and Ireland)**

• Member of organisational committee for NSAGBI, 2013 in Cardiff (scientific committee)

Aug- 2010

Aug- 2012

### **Trainee representative of the Faculty of Pain Medicine (FPM) – RCA**

- Co-opted by the board of FPM
- Member of Board of FPM and FPM-Training and Assessment Committee
- I have gained invaluable experience in the conduct of such learned bodies as the FPM-RCA and have also contributed effectively as the voice of the present trainees.
- Regularly contributed to the FPM newsletter 'Transmitter'.
- Chaired the trainees meeting at BPS-Edinburgh (2011) and BPS- Liverpool (2012)

### **Clinical/ academic mentor**

- I have acted as a mentor to junior neurosciences' research associates in my department.

**2009-11**      **Students' representative of MSc Pain Management course (Cardiff**



**University)**

- I have represented my group and have successfully co-ordinated the involvement of students in the evolution of the course.

**Developing out of hospital anaesthetic facility**

- I have developed a safe anaesthetic delivery environment in an away from hospital research facility (CUBRIC).

2007-8

**FRCA teaching course organiser**

- I organized the weekly FRCA teaching sessions at RGH, Newport (2007).

2007

**SpR Management group- teaching**

- I organized the Friday afternoon teaching sessions at UHW, Cardiff as a part of the 'SpR management group', for 3 months.

**OAA patient information leaflets**

- I conducted a cross-section survey of patients' feedback on pilot OAA 'patient information leaflets' which helped develop the final document.