

Curriculum Vitae

Christopher M R Satur

MA, MS, FRCS (C-Th), DRCOG, DCH, DFFP

**Consultant Cardiothoracic Surgeon
University Hospital of North Staffordshire**

INDEX

1	Index
2	Personal Details
3	Appointments Held
5	Clinical/ Academic Experience
7	Operative Experience
9	Referees

PERSONAL DETAILS

NAME SATUR Christopher Michael Raymond

GMC No. Registration No. 2574488

DEFENCE UNION: Medical Protection Society: Membership No. 133504

PRESENT POSITION Consultant Cardiothoracic Surgeon from 1st August 2002
University Hospital of North Staffordshire, Princes Road, Hartshill,
Stoke-on-Trent, Staffordshire, ST4 7LN, Tel No. 01782 555003

EDUCATION

SCHOOL Eardley Rd Primary School, Streatham, 1963
Bec Grammar School, Tooting, London. 1969-1977
Qualifications 9 Subjects "O" Level, 3 Subjects "A" Level

UNIVERSITY The London Hospital Medical College
London University; 1977-1982
Qualifications M.B. B.S. 1982

POSTGRADUATE

F.R.C.S.	1988 Royal College of Surgeons of England
M.S.	1996 London University
D.R.C.O.G	1997 Royal College of Obstet & Gynae
D.F.F.P	1999 Royal College of Obstet & Gynae
D.C.H	1999 Royal College of Paeds & Child Health
F.R.C.S (C.Th)	2000 Intercollegiate Board
M.A	2017 Keele University

SCHOLARSHIPS &

AWARDS

Royal College of Surgeons of England Arris and Gale Lectureship 1996;
"Magnesium and Cardiac Surgery"

RCGP Roche Prize (Yorkshire) (1997) for Audit in General Practice

Published MS Thesis An Experimental Investigation of the Potential of Radioisotope
Infarct Markers to Quantify Injury in Donor Hearts.
London University July 1996

Published MA Thesis Competency Based Medical Education: Is It A Recipe for
Delivery of Clinical Excellence?
Keele University 2017

Roles

Consultant Cardiothoracic Surgeon August 2002 University Hospital of North Staffordshire

Practising Cardiac Surgery and Thoracic Surgery
Clinical Tutor for University Hospital Trust
Trainer of surgical registrars
Trainer Specialist Surgical Trainees/ Core Surgical Trainees,
Foundation Doctors
Medical student trainer & lecturer
Regional Training Committee Member

Expert Witness

Nature of Reports Training with Bond Solon 2007
Primary Cardiothoracic Surgery/ Intensive Care Management
Medical Health Litigation/ Life Expectancy evaluation
Medical Negligence

Principle Training Posts

Cardiothoracic Surgical Training

January 1999 West Midlands Cardiothoracic Surgical Rotation
- July 2001

Vocational Training

August 1996 Vocational Training Base at York District Hospital
-December 1998

Cardiothoracic Surgical Training

September 1988 Post at Killingbeck Hospital, Guy's Hospital and Southampton
-July 1996 General Hospital

November 1991 Walton Lecturer in Cardiac Surgery
- December 1992 Professor D J Wheatley, Glasgow Royal Infirmary.

CLINICAL & ACADEMIC PROFILE

Introduction

I was appointed as Consultant Cardiothoracic Surgeon at University Hospital of North Staffordshire on 1st August 2002. My primary role is to provide general adult cardiac and thoracic surgical service. I also carry a role in education to doctors in training, and was appointed Clinical Tutor for UHNS NHS Trust in 2009. I have previously received a comprehensive experience in the breadth of subspecialties within Cardiothoracic surgery, extending from congenital heart disease, to cardiac and pulmonary transplantation, routine coronary artery surgery and cardiac valve replacement, and thoracic surgery. Part of my training has included time spent in general practice, an experience that has both broadened my clinical experience and has enhanced my ability to offer patients an holistic package of care. I therefore take pride in offering my patients a service that embodies quality and reliability.

Operative Experience

As consultant I have performed in excess of 1000 cardiac operations, including coronary artery bypass operations, isolated valve or combined valve and coronary graft operations, and acute pulmonary embolectomy. My thoracic surgical practice is delivers a service to treat both benign and malignant conditions, and cases arising from trauma. The principle workload however is the investigation and treatment of malignant conditions including bronchial carcinoma, mesothelioma. Surgical procedures include standard lung resection, to chest wall resection, combined surgery following neo-adjuvant chemotherapy, video assisted surgery, and corrective surgery for chest wall deformities. I undertake in excess of 150 procedures per year.

Personal Clinical Interests

I provide cardiac surgical care for patients suffering from ischaemic heart disease, cardiac valvular disease and a selection of additional vascular procedures. Procedures I undertake for ischaemic heart disease include Coronary Artery Bypass Graft Surgery, utilising arterial conduits in most patients. Valve pathologies treated include aortic, mitral and tricuspid valve disease treated by mechanical and biological valve replacement, and valve repair. I have sought to and have achieved a significant extension of these treatments to older patient groups, patients in their late 70's and octogenarians, whilst maintaining the excellent results evident in younger patients.

I place strong emphasis on offering a comprehensive package care encompassing the pre-, intra- and postoperative periods by incorporating an holistic approach. I therefore aim to optimise patients with COPD, diabetes and morbid obesity, almost eliminating the common complications associated with cardiac surgery in these patients. The treatment such patients receive, utilise the use of individualised treatment plans.

Academic Training

I have undertaken research in a number of subjects. Areas of principle interest have included investigations into the role of magnesium in cardiac surgery. I received a **Royal College of Surgeons Lectureship** to recognise this success of this research. I also undertook a research programme leading to the award of the **Master of Surgery Degree** from London University. In order to achieve the latter I investigated the utility of radioisotope markers in quantifying myocardial injury during and after brain death. It was intended to develop a test of use in evaluating the quality of hearts accepted for cardiac transplantation. I have also had an interest in highlighting the importance of thromboembolism following cardiothoracic surgery. The results of this research experience have and will continue to influence my clinical practice.

Since my appointment as consultant I have developed a number of clinical reviews and research projects that have been presented on my behalf at national and international meetings and a number of reports have been published. Major projects that I have developed include a statistical evaluation of the influence of estimated Creatine Clearance on operative risk stratification as opposed to the influence of serum creatine concentration.

Protocols

Diabetic patients are prone to suffer an increased number of complications following cardiac surgery. This increased risk may be minimised by optimum management of the diabetes in the peri-operative period. This area of clinical management however has been an area where protocols were either deficient or difficult to manage. I therefore undertook a review of protocols utilising multidisciplinary consultation, and providing new guidelines. These guidelines have been incorporated into practice within the department, in particular in the Intensive Care Unit. Nursing staff appear to have welcomed the changes as they now have guidelines with improved flexibility thus allowing them to provide more efficient glucose control.

Atrial fibrillation is a problem affecting 1/3rd of patients after cardiac surgery. The evidence for various strategies of treatment are conflicting. I have therefore provided a review and guidelines for the use of various drug protocols, emphasising a primary role of sotalol. These guidelines have provided a structure that allows consultants to assess alternative strategies in various situations. This protocol also forms a part of comprehensive "Cardiothoracic Unit Guidelines".

Training

I have throughout my career had a passion for training which has arisen from my desire for excellence in the delivery of care to patients. I have first sought to achieve hurdles of training myself, ensuring my own clinical standards developed to the highest levels and that I achieved advanced academic certification. I have had the opportunity to experience varied patterns of education in surgical and vocational training. I have therefore developed a broad experience that has been readily put to work. In positions from Specialist Registrar to Consultant, I have driven forward changes that have resulted in significantly enhanced training practices. I first published a report of a Wet Laboratory Model for training in 1994 that I believe was significantly innovative. It pre-dated the present day realisation of the importance for Wet Lab Training and the model is one that is today actively utilised in training of junior surgeons.

I have throughout my career, and at various levels of seniority, introduced important and often vital changes to junior doctors working environment. As a registrar at Queen Elizabeth Hospital, Birmingham, I undertook a review of Senior House Officers working patterns that directly lead to

employment of additional doctors in order to develop EWDT compliant working practices. In the same post I developed and delivered a successful trust wide programme of lectures for Training in Management. In a number of subsequent posts, I re-organised rosters, again to enhance training opportunities and achieve compliance with employment rules. I have also re-structured training practices in the present post leading to provision of a highly competitive training of Senior House Officers that enabled an expansion of trainees at this level. My role in the development of these programmes has directly resulted in the introduction of Advanced Nurse Practitioners and Surgical Assistants, their role being of great importance in enhancing Surgical Training.

I have been actively involved in all areas of West Midland Deanery activities. I have been an active member of the Regional Training Committee for a period in excess of five years. I have thus been involved in the process of "RITAs" assessing Specialist Registrar progress and providing support to future development. I have also been actively involved throughout these years in the interview process of applicants for specialist registrar posts. I have undertaken short listing and interviewing for both cardiothoracic and general surgical trainees in the MTAS process, and have interviewed for Foundation Doctors posts. My participation in regional training programmes has involved delivery of programmes of lectures to Specialist Registrars and Specialist Trainees, Years 1 and 2. Furthermore I have run a number of Wet Lab course for coronary artery grafting.

I am the Clinical Lead for training within the department, having responsibility for Foundation Doctors, Core Trainees and for Registrars in training. Within this role I have developed an innovative and active programmes of training that has ensured all foundation and core trainees/ senior house officers have gained skills that have allowed them to successfully continue onto advanced specialist training. Regarding registrars I have developed a form of appraisal that enables the skills of a trainee to be specifically measured and training directed to actively progress the training identified needs. Tools for the assessment of competency have been actively employed since their introduction three years ago. I have also been actively involved in delivery of educational programmes across the region. I am registered with the Intercollegiate Surgical Curriculum Project.

My interest and passion for training has been extended to a very active role in Keele Medical School. My roles have extended from interviewing prospective medical students, to teaching successful candidates and examining students. I am a Firm Tutor, supervising four firms a year of Year 3 undergraduates. I also supervise students in later years selecting special assignments with myself. As part of the broader programme of activities I am involved in delivering learning activities of Problem Based Learning, delivering "Ask The Expert Sessions" and clinical skills sessions.

As Clinical Tutor for the Trust, I principally oversee the training of approximately 110 Foundation Year 1 and Year 2 trainees. I also oversee the specialty training organised by through individual specialty training schools. I deal with employment and EWTD issues across the Trust and am involved in dispute resolution on these matters.

Medical Expert Practice

I completed the course in training to undertake tasks as a Medical Expert through Bond Solon. I have since 2007 undertaken a number of assignments requiring experience in the field of cardiothoracic surgery. The tasks, as expected, have covered a range of issues including the impact of cardiac and thoracic pathologies and their treatments on long term survival. I have provided numerous reports covering topics relating to estimation of change in life expectancy resulting from disease and injury, influence of treatment on life and medical negligence. I have also reported on negligence cases.

PUBLICATIONS

Published Original Papers:

1. The Killingbeck paediatric lung retractor.
C.M.R. Satur, D.R. Walker. *Annals of Thoracic Surgery*, 1990;49:491(Citation 1)
2. Operative insertion of a transvenous left atrial monitoring line.
C.M.R. Satur, S.R. Stubington, A.D. Crew, D.R. Walker.
Annals of Thoracic Surgery, 1990;50:1004-5 (citation 4)
3. Day case ligation of patent ductus arteriosus in preterm infants: a 10 year review.
C.M.R. Satur, D.F. Dickinson, D.R. Walker. *Archives of Disease in Childhood* 1991;66:477-80(Citation 31)
4. Multiple pulmonary microemboli complicating pneumonectomy.
C.M.R. Satur, R.H. Robertson, P.E. DaCosta, N.R. Saunders, D.R. Walker.
Annals of Thoracic Surgery, 1991;52:122-26(Citation 77)
5. Iatrogenic peritoneopericardial hernia following coronary artery bypass surgery. D.A. Waller, **C.M.R. Satur**, I.M. Mitchell, M. Sivanathan. *European Journal of Cardiothoracic Surgery*, 1992;6:156-57(Citation 5)
6. Transient hypercoagulability in adult patients following open heart surgery.
F. Horkay, P.G. Martin, N.K. Gupta, **C.M.R. Satur**, D.R. Walker. *Perfusion* 1992;7:119-23 (Citation 2)
7. Hypomagnesaemia and fits complicating paediatric cardiac surgery.
C.M.R. Satur, A. Jennings, D.R. Walker. *Annals of Clinical Biochemistry* 1993;30:315-17 (Citation 8)
8. Recurrence of rectal carcinoma in the mediastinum; A rare case.
C.M.R. Satur, C. Gebitekin, P.E. DaCosta, N.R. Saunders. *Southern Medical Journal* 1993;86:697-8 (Citation 1)
9. Angioscopic guided training model of coronary artery anastomosis.
C.M.R. Satur, N. K. Gupta. *Annals of Thoracic Surgery* 1994;57:1343-5(Citation 4)
10. Determinants of longterm survival in stage I non-small cell lung carcinoma.
C. Gebiteken, G Olgac, **C.M.R Satur**, P.G. Martin, N.R. Saunders, D.R. Walker. *Radiology and Oncology* 1994;18:124-8
11. Fate of patients with residual tumour at the bronchial resection margin.
C. Gebitekin, **C.M.R. Satur**, N.K. Gupta, P.G. Martin, N.R. Saunders, D.R. Walker. *European Journal of Cardiothoracic Surgery* 1994;8:339-44(Citation 37)
12. Magnesium flux caused by coronary artery bypass surgery; three patterns of deficiency. **C.M.R. Satur**, J.R. Anderson, A. Jennings, K. Newton, P.G. Martin, U.R. Nair, D.R. Walker. *Annals of Thoracic Surgery*, 1994;58:1674-8(Citation 33)
13. Magnesium flux during and after open heart operations in children.
C.M.R. Satur, S.R. Stubington, A. Jennings, K. Newton, P.G. Martin, C. Gebiteken, D.R. Walker. *Annals of Thoracic Surgery* 1995;59:921-7(Citation 18)
14. Results of pneumonectomy for cancer in patients with limited ventilatory function.
C. Gebiteken, P.G. Martin, **C.M.R. Satur**, G. Olgac, N.R. Saunders, D.R. Walker.
European Journal of Cardiothoracic Surgery 1995;9:347-51(Citation 13)

15. Influence of heparin thromboprophylaxis on plasma leucocyte elastase levels following lobectomy for lung carcinoma. Y. Tian, C. Gebetekin, P. Martin, **C.M.R Satur**, A. Mearns, D.R Walker. *Blood Coagulation & Fibrinolysis* 1995;6:527-30 (Citation4)
16. Giant pericardial cysts; A case report. **C.M.R. Satur**, M.K.Y Hsin, J.E. Dussek. *Annals of Thoracic Surgery* 1996;61:208-10(Citation 30)
17. Removal of an inhaled needle from the mediastinum with the aid of a metal detector. **C.M.R. Satur**, O.J. Lau. *Annals of The Royal College of Surgeons of England* 1996;78:393-5 (Citation 3)
18. Arris and Gale Lecture; Magnesium and Cardiac Surgery. **C.M.R. Satur**. *Annals of The Royal College of Surgeons of England* 1997;79:349-54(Citation 18)
19. An experimental method to induce variable patterns of brain death and myocardial injury. **C.M.R. Satur**, W. Martin, S Darracott-Cankovic, J Morrison, D.J. Wheatley. *Transplantation Proceedings* 1998;30(1):211-213(Citation 7)
20. Can 99m technetium pyrophosphate be used to quantify myocardial injury in donor hearts? **C.M.R Satur**, D. Doyle, S. Darracott-Cankovic, W. Martin, D.J. Wheatley. *The Annals of Thoracic Surgery*, 1999;68:2225-30
21. Magnesium and its role in cardiac surgical practice: A review. **C.M.R. Satur**. *Journal of Clinical and Basic Cardiology*2002;5:67-73(Citation 3)
22. Heparin induced thrombocytopenia type II complicating coronary artery bypass surgery: A tale of Caution. U Dandekar, J Young, M Kalkat, **C.M.R. Satur**. *Interactive Cardiovascular and Thoracic Surgery* 2004;3:121-123 (Citation 5)
23. Sutureless off-pump repair of post-infarction left ventricular free wall rupture.H.A. Vohra , S. Chaudhry, **C.M. Satur**, M. Heber, R. Butler, P.D. Ridley. *Journal of Cardiothoracic Surgery*2006;1:11(Citation 5)
24. Left ventricular aneurysmectomy: tailored scar excision and linear closure. Kalkat MS, Dandekar U, Smallpeice C, Parmar J, **Satur C**, Levine A. *Asian Cardiovasc Thorac Ann.* 2006 Jun;14(3):231-4.(Citation 2)
25. Isolated Severe Ischaemic Tricuspid Regurgitation: Successful surgical Correction. U Dandekar, P Ridley, **Satur C.M.R.***J Heart Valve Dis.* 2007 May;16(3):331-2
26. Nurse lead pre-operative screening and targeted optimisation of pulmonary dysfunction in patients undergoing cardiac surgery. Sivalingam S., Rathinam S., Ajis A., **Satur C.M.R.** *The Annals of Thoracic Surgery*2007 Aug;84(2):683-5.(Citation 4)
27. Does perioperative administration of thyroid hormones improve outcome following coronary artery bypass grafting? Vohra AH., Bapu D., Bahrami T., Gaer J., **Satur CM.** *J Card Surg.* 2008 Jan-Feb;23(1):92-6. Review.(Citation 7)

Published Abstracts and Letters:

1. Ligation of the premature patent ductus arteriosus as a day case: a ten year review. Abstract.
C.M.R. Satur, D.F. Dickinson, D.R. Walker. *The Journal of Cardiovascular Surgery*, 1990;31,4:56
2. Letter of reply to comments on the paper entitled "Day case ligation of patent ductus arteriosus in preterm infants: a 10 year review."
C.M.R. Satur, D.F. Dickinson. *Archives of Disease in Childhood* 1991;66:1466-7
3. Ligation of the premature patent ductus arteriosus as a day case: a ten year review. Abstract.
C.M.R. Satur, D.F. Dickinson, D.R. Walker. *Pediatrics Digest* 1991;8:26
4. Postpneumonectomy pulmonary edema or microembolism?
C.M.R. Satur, N.K Gupta, D.R Walker. *Annals of Thoracic Surgery* 1993;56:523-4
5. Neutrophil elastase release and cardiopulmonary bypass. N.K. Gupta, P.G. Martin, **C.M.R. Satur**, D.R. Walker. *Journal of Thoracic and Cardiovascular Surgery* 1994;107:1160-1
6. Ductus arteriosus ligation without a tube thoracostomy, letter of comment.
C.M.R. Satur, S. Ashraf, D.R. Walker, *Annals of Thoracic Surgery* 1995;60:1459-60
7. Intra-operative tracheal obstruction by tumour fragments.
C.M.R. Satur, A.B. Church, O.J. Lau, *Anaesthesia* 1995;50:1012
8. Consider the working day in surgical training (letter). **C.M.R. Satur**, *Annals Of the Royal College of Surgeons of England (Bulletin)*, March 1999;98
9. Philpott, M., F. O'Mahony, R. Pai, C. Satur, and S. Ghosh. "O544 SURGICAL MANAGEMENT OF EMPYEMA IN PREGNANCY—THE CHALLENGES OF MANAGEMENT." *International Journal of Gynecology & Obstetrics* 119 (2012): S452-S453.

Published MS Thesis

1. An Experimental Investigation of the Potential of Radioisotope Infarct Markers to Quantify Injury in Donor Hearts. *London University* July 1996
2. Competency based medical education: Is it a recipe for delivery of clinical excellence?
Keele University 2017

Christopher M R Satur

Date **9th April 2013**