

## **Curriculum Vitae**

**Dr Suneil Kumar Aggarwal,**  
BSc (Hons), MBBS, MRCP (UK), MRCP  
(London), MD (Res)

## Dr Suneil Kumar Aggarwal

**Address:** 5 Churchill Gardens  
St Helens  
WA9 5GB

**GMC no:** 6053217

**Nationality:** British

**Telephone:** 07735 503938

**E-mail:** [suneil.aggarwal@lhch.nhs.uk](mailto:suneil.aggarwal@lhch.nhs.uk)

**Date of birth:** 30th April 1978

**Marital status:** Married

### Current post

---

**Oct 2015 – present: Consultant Interventional Cardiologist, Liverpool Heart and Chest Hospital, Liverpool, UK**

#### *Lead for Structural and Adult Congenital Intervention*

I have been a consultant cardiologist for nearly 7 years. Prior to that I was among the first people in the UK to complete a fellowship specifically including TAVI and other structural interventions (at Barts Heart Centre, the largest cardiac centre in the UK).

I currently lead the structural heart intervention programme at Liverpool Heart and Chest Hospital. We have the largest catchment area for adult congenital heart disease patients in the UK and this is therefore a very busy service. The structural heart interventions include ASD/PFO closure, LAAO, paravalvular leak closure, mitral valvuloplasty and adult congenital heart disease interventions including coarctation stenting, pulmonary valve implantation and other complex congenital interventions. We are a large TAVI centre, having implanted over 300 valves in the last year and continue to expand, as well as performing mitral and tricuspid valve-in-valve procedures. I also perform PCI including complex PCI (rotablation, IVUS/OCT, FFR/IFR) and am on call for the primary PCI service.

I am also actively involved in research and currently leading on a few research projects in both TAVI and coronary intervention. I am a regular speaker at both national and international conferences. Finally, I started the TAVI and structural intervention fellowship in Liverpool in 2016 and therefore have extensive experience in teaching structural intervention to fellows, all of whom have now gone on to Consultant or Senior Fellow posts in structural intervention around the UK.

### Previous posts

---

**Nov 2013 – Oct 2015: Senior Clinical Fellow in Adult Congenital and Structural Intervention, The Heart Hospital/Barts Heart Centre and MD (Res), University College London**

**Oct 2009 – Oct 2013: NIHR Academic Clinical Fellow/Specialist Registrar, University College London/The Heart Hospital**

**Dec 2008 – Aug 2009 : London deanery LAT (ST3) in Cardiology, St. Richard's Hospital, Chichester**

**Nov 2005 – Nov 2008 : Cardiology Resident at Sri Sathya Sai Institute of Higher Medical Sciences, AP, India**

### **Post-graduate qualifications/certification**

---

**MRCP (UK)** - obtained 1<sup>st</sup> April 2005  
 - achieved 55 out of maximum 56 marks in clinical examination (PACES)  
 - all parts passed at first attempt

**Cardiology KBA** – June 2011

**CCT (Cardiology)** - 16th April 2015

**MD (Res) 2019** – University College London

### **Education**

---

**1996-2002 University College London Medical School, University of London**

**2002 MBBS** from University of London

**1999 Intercalated BSc in Tumour Biology (1<sup>st</sup> class Hons)** from University of London

#### ***Prizes and scholarships***

Prizes in Structural and Developmental Biology (Anatomy & Embryology), Genetics, Anatomical Dissection, Anatomy, Pathology, Immunology, Pharmacology and **Best Aggregate** in both Years 1 and 2.

Certificate of Merit in Structure and Function of Integrated Systems (Physiology)

Prize Vivas in Structure and Function of Integrated Systems and Neuroscience

**Meyerstein Scholarship** for years 3, 4 and 5

**Shanks Foundation Award** for Intercalated BSc in Tumour Biology

Prizes in Surgery and Pathology for MBBS 3rd year

Certificate of Merit for overall performance, Prize Viva in Medicine

**UCL Union Social Colours** for commitment to extra-curricular activities (2000)

#### **MBBS Finals Examinations**

**Distinctions** in Surgery, Pathology and Clinical Pharmacology & Therapeutics

**1<sup>st</sup> Atchison and Broderip Prize for overall performance** in MBBS Parts A-E

1<sup>st</sup> prizes in Pathology, Clinical Pharmacology & Therapeutics and Obstetrics & Gynaecology

#### **1991-96 Magdalen College School, Oxford**

<b>A-level</b>	4 A's – Biology, Chemistry, Physics, English Literature
<b>S-level</b>	Biology 1 (Distinction)
<b>STEP</b>	Chemistry S (Cambridge Open Award Distinction)

### **Prizes and scholarships**

Full Scholarship to Magdalen College School, Oxford  
School GCSE Prize and School A-level Prize

## **Research**

---

### **Papers published**

- **Aggarwal SK**, Barik R, Sarma TC, Iyer VR, Sai V, Mishra J, Voleti CD. Clinical presentation and investigation findings in cardiac myxomas: new insights from the developing world. **Am Heart J**. 2007 Dec;154(6):1102-7.
- **Aggarwal SK**, Mishra J, Sai V, Iyer VR, Panicker BKP. Aortopulmonary window in adults: diagnosis and treatment of late-presenting patients. **Congenit Heart Dis**. 2008; 3: 341-346.
- Agarwal V, **Aggarwal SK**, Voleti CD. Factors predicting the progress of mitral valve disease in surgically treated cases of Ostium Primum Atrial Septal Defects in adults. **J Thorac Cardiovasc Surg** 2009 Mar;137(3):543-7.
- **Aggarwal SK**, Yip K, Prasad SK. Snake venom for acute myocardial infarction: natural serendipity or an obstruction to treatment? **International Journal of Cardiology**. 2007 Jul 10; 119(2): e53-5.
- **Aggarwal SK**, Iyer VR. Images in Cardiology: Ruptured sinus of Valsalva and Bicuspid aortic valve. **Clinical Cardiology**. 2009;32:E97-8.
- **Aggarwal SK**, Barik R. Infection of patent arterial duct in an adult. **Cardiology in the Young**. 2007 Oct;17(5):565-6.
- **Aggarwal SK**, Sai V, Iyer VR. Imaging features of aorto-right atrial tunnel: a report of two cases. **Congenit Heart Dis**. 2007 Nov;2(6):429-32.
- **Aggarwal SK**, Barik R, Agarwal JK, Sai V, Iyer VR. Giant ruptured sinus of Valsalva aneurysm: diagnosis on echocardiography. **Eur J Echocardiogr**. 2008 Jan;9(1):xviii-xix.
- **Aggarwal SK**, Sai V, Iyer VR. Ruptured sinus of valsalva: unexpected finding in a patient diagnosed with ventricular septal defect with aortic regurgitation. **Pediatr Cardiol**. 2008 Mar;29(2):473-4.
- **Aggarwal SK**, Sai V, Desai N, Iyer VR, Voleti CD. Giant Single Left Coronary Artery With Right Ventricular Fistula Diagnosed In Early Childhood. **Indian Heart J**. 2008;60:263-5.
- **Aggarwal SK**, Sai V, Ramnath Iyer V. Mixed Supra- and Infradiaphragmatic Totally Anomalous Pulmonary Venous Connection in an Adolescent. **Pediatr Cardiol**. 2008 Jul 29 29:858-9.
- **Aggarwal SK**, Lingan A, Reddy KK, Swamy M, Iyer VR, Srivatsa SS. Quadricuspid Aortic Valve With Ruptured Sinus Of Valsalva Aneurysm To The Right Atrium. **Echocardiography**. 2009;26 (8):977-9.
- **Aggarwal SK**, Iyer VR, Sai V, Mishra J. Concurrent diagnosis of rheumatic mitral stenosis and aortoarteritis: A rare combination. **Indian Heart J**. 2009;61(4):375-6.
- Aung N, Ling HZ, Cheng AS, **Aggarwal S**, Flint J, Mendonca M, Rashid M, Kang S, Weissert S, Coats CJ, Richards T, Thomas M, Woldman S, Okonko DO. Expansion of the red cell distribution width and evolving iron deficiency as predictors of poor outcome in chronic heart failure. **Int J Cardiol**. 2013 Oct 3;168(3):1997-2002.
- Ling HZ, Flint J, Damgaard M, Bonfils PK, Cheng AS, **Aggarwal S**, Velmurugan S, Mendonca M, Rashid M, Kang S, Papalia F, Weissert S, Coats CJ, Thomas M, Kuskowski M, Cohn JN, Woldman S, Anand IS, Okonko DO. Calculated plasma volume status and prognosis in chronic heart failure. **Eur J Heart Fail**. 2015;17:35-43

- Jabbour R, Ling HZ, Norrington K, Amaral N, Zaman N, **Aggarwal S**, Aung N, Barron A, Manisty C, Baruah R, Cole GD, Missouriis CG, Mayet J, Francis DP, Cheng AS, Thomas M, Woldman S, Okonko DO. Serum albumin changes and multivariate dynamic risk modelling in chronic heart failure. **Int J Cardiol**. 2014;176:437-443
- **Aggarwal SK**, Sirker A, Swanton H, Ozkor M. Seeing through the haze: Optical coherence tomography demonstrates the unanticipated cause of a left anterior descending coronary artery lesion. **JACC Cardiovasc Interv**. 2014;7:e97-98
- Lee AJ, Michail M, Quaderi SA, Richardson JA, **Aggarwal SK**, Speechly-Dick ME. Implementation of nice clinical guideline 95 for assessment of stable chest pain in a rapid access chest pain clinic reduces the mean number of investigations and cost per patient. **Open Heart**. 2015;2:e000151
- Reinthaler M, Schwabe A, Landmesser U, Chung R, **Aggarwal S**, Delahunty N, Frohlich G, Meier P, Roberts N, Pantazis A, Mullen MJ. 'Paradoxical' low-flow, low-gradient severe aortic valve stenosis: An entity with limited improvement following transcatheter aortic valve implantation. **J Heart Valve Dis**. 2014;23:441-449
- Reinthaler M, Stahl BE, Gopalamurugan AB, Xiu PY, **Aggarwal SK**, Frohlich G, Delahunty N, Mullen MJ. Post-procedural arterial hypertension: Implications for clinical outcome after transcatheter aortic valve implantation. **J Heart Valve Dis**. 2014;23:675-682
- Reinthaler M, **Aggarwal SK**, De Palma R, Landmesser U, Froehlich G, Yap J, Meier P, Mullen MJ. Predictors of clinical outcome in transfemoral TAVI: Circumferential iliofemoral calcifications and manufacturer-derived recommendations. **Anatol J Cardiol**. 2015;15:297-305.
- Baumbach A, Mullen M, Brickman AM, **Aggarwal SK**, Pietras CG, Forrest JK, Hildick-Smith D, Meller SM, Gambone L, den Heijer P, Margolis P, Voros S, Lansky AJ. Safety and performance of a novel embolic deflection device in patients undergoing transcatheter aortic valve replacement: Results from the DEFLECT-1 study. **EuroIntervention**. 2015 Apr 15;10(12). pii: 20150121-07.
- **Aggarwal SK**, Delahunty N, Wong B, Tamimi AN, Reinthaler M, Cheang MH, Roberts N, Yap J, Ozkor M, Mullen MJ. Balloon-expandable transcatheter aortic valves can be successfully and safely implanted transfemorally without balloon valvuloplasty. **J Interven Cardiol** 2016;29:319–324.
- Rampat R, Khawaja MZ, Byrne J, MacCarthy P, Blackman DJ, Krishnamurthy A, Gunarathne A, Kovac J, Banning A, Kharbanda R, Firoozi S, Brecker S, Redwood S, Bapat V, Mullen M, **Aggarwal S**, Manoharan G, Spence MS, Khogali S, Dooley M, Cockburn J, de Belder A, Trivedi U, Hildick-Smith D. Transcatheter Aortic Valve Replacement Using the Repositionable LOTUS Valve: United Kingdom Experience. **JACC Cardiovasc Interv**. 2016;9:367-372.
- Calvert PA, Northridge DB, Malik IS, Shapiro L, Ludman P, Qureshi SA, Mullen M, Henderson R, Turner M, Been M, Walsh KP, Casserly I, Morrison L, Walker NL, Thomson J, Spence MS, Mahadevan VS, Hoye A, MacCarthy PA, Daniels MJ, Clift P, Davies WR, Adamson PD, Morgan G, **Aggarwal SK**, Ismail Y, Ormerod JO, Khan HR, Chandran SS, de Giovanni J, Rana BS, Ormerod O, Hildick-Smith D. Percutaneous Device Closure of Paravalvular Leak: Combined Experience From the United Kingdom and Ireland. **Circulation**. 2016;134:934-44.
- Rampat R, Khawaja MZ, Hilling-Smith R, Byrne J, MacCarthy P, Blackman DJ, Krishnamurthy A, Gunarathne A, Kovac J, Banning A, Kharbanda R, Firoozi S, Brecker S, Redwood S, Bapat V, Mullen M, **Aggarwal S**, Manoharan G, Spence MS, Khogali S, Dooley M, Cockburn J, de Belder A, Trivedi U, Hildick-Smith D. Conduction Abnormalities and Permanent Pacemaker Implantation After Transcatheter Aortic Valve Replacement Using the Repositionable LOTUS Device: The United Kingdom Experience. **JACC Cardiovasc Interv**. 2017;10:1247-1253.

- Masoud A, Bartoletti S, Fairbairn T, Khurana A, Velavan P, Morrison WL, Khalatbari A, **Aggarwal S**, Sharma N, Kirchhof P, Gupta D. Outcome of left atrial appendage occlusion in high-risk patients. *Heart*. 2018;104:594-599.
- **Aggarwal SK**, Delahunty Rn N, Menezes LJ, Perry R, Wong B, Reinthaler M, Ozkor M, Mullen MJ. Patterns of solid particle embolization during transcatheter aortic valve implantation and correlation with aortic valve calcification. *J Interv Cardiol*. 2018;31:648-654.
- Blake SR, Shahzad A, **Aggarwal SK**, Kumar A, Khan A, Stables RH. Radial versus femoral vascular access in ST-elevation myocardial infarction: Are the results of femoral operators unfairly represented in observational research? *Am Heart J*. 2019;210:81-87.

### **Published abstracts**

- Okonko D, Primus C, **Aggarwal S**, Flint J, Aung N, Ling HZ, Murukattonpoondi G, Cheng A, Thomas M, Woldman S. Origins of Anemia in Chronic Heart Failure and the Prognostic Benefits of an Improved Iron Status. *J Am Coll Cardiol* 2011; 57(14).
- Ling HZ, Aung N, Flint J, **Aggarwal S**, Cheng A, Thomas M, Woldman S, Okonko DO. Calculated Plasma Volume Status and Mortality in Chronic Heart Failure. *J Am Coll Cardiol* 2011; 57(14).
- Ling HZ, Aung N, Flint J, **Aggarwal S**, Weissert S, Cheng A, Francis DP, Mayet J, Thomas M, Woldman S, Okonko DO. Prognostic utility of calculated plasma volume status in chronic heart failure. *Heart* 2011; 97(1).
- **Aggarwal SK**, Connell A, Aung N, Papalia F, Flint J, Weissert S, Ling HZ, Richards T, Okonko DO. Abstract 15125: Calculated plasma volume status predicts survival in aortic valve replacement. *Circulation*. 2011;124:A15125
- Papalia F, Aung N, Ling HZ, **Aggarwal S**, Flint J, Connell A, Weissert S, Mayet J, Francis D, Thomas M, Woldman S, Okonko DO. Abstract 16398: Prognostic utility of the hemoglobin/hematocrit equation for estimating plasma volume changes over time in chronic heart failure. *Circulation*. 2011;124:A16398
- Connell A, **Aggarwal S**, Papalia F, Flint J, Weissert S, Aung N, Richards T, Okonko DO. Abstract 17003: Post-operative expansion of the red cell distribution width powerfully predicts poor outcomes after aortic valve surgery. *Circulation*. 2011;124:A17003
- Weissert S, Flint J, **Aggarwal S**, Connell A, Papalia F, Babu G, Ling HZ, Aung N, Richards T, Okonko D. Abstract 17396: Iron deficiency as the most ominous substrate for anemia in patients undergoing coronary artery bypass surgery. *Circulation*. 2011;124:A17396
- Konstantinou K, Aung N, Norrington K, Jabbour R, Kelshiker M, Turner HK, Barakat MF, Ling HZ, **Aggarwal S**, Flint J, Mayet J, Francis DP, Thomas M, Woldman S, Okonko DO. Abstract 17848: Evolving iron deficiency confers most of the adversity associated with a temporal rise in red cell distribution width, is more ominous than a falling hemoglobin, and blunts left ventricular long axis function in chronic heart failure. *Circulation*. 2012;126:A17848
- Ling HZ, Aung N, Cheng A, Flint J, **Aggarwal S**, Mendonca M, Rashid M, Kang S, Papalia F, Cotton C, Kalra P, Thomas M, Kuskowski M, Cohn JN, Woldman S, Anand IS, Okonko DO. Abstract 18594: Plasma volume status calculated instantaneously from weight and hematocrit relates to objectively measured plasma volumes and powerfully predicts death and first morbid events in chronic heart failure. *Circulation*. 2012;126:A18594
- Turner HK, Husain S, **Aggarwal S**, Flint J, Norrington K, Barakat M, Kelshiker M, Cheng A, Okonko DO. Optimal Euroscores for predicting inpatient deaths in patients with left ventricular systolic dysfunction undergoing cardiac surgery. *J Am Coll Cardiol*. 2013
- Michail M, Lee AJX, Quaderi SA, Richardson RA, **Aggarwal SK**, Speechly-Dick ME. Implementation of NICE Clinical Guideline 95 for investigation of "chest pain of recent onset"

reduces cost. Eur Heart J. 2013;34 (Suppl 1): DOI: <http://dx.doi.org/10.1093/eurheartj/eh309.P3344>

- Quaderi SA, Lee AJX, Michail M, Richardson RA, **Aggarwal SK**, Speechly-Dick ME. The Guideline: a "safe" tool? Implementation of NICE guidelines for investigation of "chest pain of recent onset" avoids the use of inappropriate investigations, enhancing patient safety. Eur Heart J. 2013;34 (Suppl 1): DOI: <http://dx.doi.org/10.1093/eurheartj/eh309.P3987>
- **Aggarwal SK**, Reinthaler M, Cheang MH, Mullen MJ. Transcranial Doppler-detected Emboli Can Be Differentiated Between Solid And Gaseous Emboli During Transcatheter Aortic Valve Implantation And This Has Implications For Neuroprotective Strategies. Heart 2014; 100(Suppl 3):A60.
- Pantazis A, Cheang MH, Mullen M, Elliott P, McKenna W, **Aggarwal SK**, Tome-Esteban MT, Reinthaler M, Delahunty N. Percutaneous mitral repair in hypertrophic cardiomyopathy. Heart 2014; 100 Suppl 3:A54-5.
- Reinthaler M, Schwabe A, Landmesser U, Chung R, **Aggarwal S**, Delahunty N, Fröhlich G, Meier P, Roberts N, Pantazis A, Mullen MJ. TCT-708 "Paradoxical" low flow low gradient severe aortic valve stenosis - an entity with limited improvement following transcatheter aortic valve implantation. J Am Coll Cardiol. 2013;62 (18\_S1):B216.
- **Aggarwal SK**, Delahunty N, Early S, Ako E, Cheang MH, Reinthaler M, Tamimi AN, Wong B, Roberts N, Yap J, Ozkor M, Mullen MJ. TCT-761 Balloon-Expandable Transcatheter Aortic Valves Can Be Effectively And Safely Implanted Transfemorally Without Balloon Valvuloplasty J Am Coll Cardiol 2014; 64(11):B222.

#### ***Journals I have peer-reviewed papers for***

- British Medical Journal
- JACC Cardiovascular Intervention
- Journal of Interventional Cardiology
- Advances in Interventional Cardiology
- European Journal of Cardiovascular Imaging
- Clinical Cardiology
- Congenital Heart Disease
- Catheterization and Cardiovascular Intervention
- Open Heart
- Anatolian Journal of Cardiology
- Journal of Postgraduate Medicine

#### **Research Grants awarded**

- Keystone Heart Funding - £16,000 - for purchase of DWL Transcranial Doppler machine
- Heart Hospital Charities Grant 2012 - £5205 (Co-applicant) - for purchase of CANTAB Eclipse hardware and 1 year software licence
- Heart Hospital Charities Grant 2014 - £4985 (Lead applicant) - for purchase of CANTAB Eclipse hardware and 3 year software licence
- Edwards Lifesciences Project Grant 2015 - £30,000 (Co-applicant) - for extension of cognitive function testing into the UK TAVI trial at a further 5 centres

#### **Major courses/presentations/conference faculty**

- Cardiological Society of India Annual Conference, Hyderabad, December 2007 (presenter)
- Pediatric Cardiac Society of India 10th Annual Conference, Cochin, November 2008 (presenter)

- American Heart Association Scientific Sessions 2011, Orlando (presenter)
- Yale-UCL Innovations in Cardiovascular Interventions conference, London, January 2013 (faculty)
- Transcatheter Therapeutics, Washington DC, September 2014 (presenter)
- PCR London Valves, London, September 2014 (presenter)
- Pulmonic Valve Implanter course, Geneva, December 2014 (course proceedings lead author)
- Fundamentals of Vascular Access Course, Stoke, UK 2017 (Faculty)
- Boston Acurate Neo Implanters Workshop, London 2018 (Chairperson)
- EuroPCR, Paris, 2018
- TAVI Now and Next 2018, Nottingham, UK (Faculty)
- Aorta India and The Structural Heart Workshop, New Delhi, India 2018 (International Faculty)
- Indian Association of Cardio-thoracic Surgeons (IACTS) CME course 2018, New Delhi, India 2018 (Keynote speaker)
- India Valves 2018, New Delhi, India (International Faculty)
- 12<sup>th</sup> International Workshop on Interventional Pediatric and Adult Congenital Cardiology, Milan 2019
- Oxford TAVI Workshop 2019 (Faculty)
- TAVI Now and Next 2019, Nottingham, UK (Faculty)
- Critical issues In Aortic Endografting International Experts Symposium 2019, Liverpool, UK (Faculty)
- BCIS Vascular Access course 2019 (Faculty)
- PCR London Valves 2019
- ACI London 2020
- India Live 2020 (Faculty)
- TAVI Now and Next, Nottingham 2021 (Faculty)
- PCR London Valves 2021
- ACI London 2022 (Faculty)

### **Membership/Registration of professional bodies**

---

- British Cardiovascular Intervention Society – Elected Council Member 2020-2023 and Website lead
- Royal College of Physicians, London
- British Cardiovascular Society
- European Society of Cardiology
- General Medical Council
- British Association of Cardiologists of Indian Origin (BACIO) – Executive council member

### **Voluntary work**

---

- I have had a long-standing interest in voluntary work since I was at school, where I used to volunteer in a local hospital. I was treasurer of the UCL Medical School charity SPECTRUM, where I organised and attended several trips for inner-city disabled children to the seaside and the countryside.



- I spent 3 years working at a fully charitable hospital in India (the Sri Sathya Sai Institute of Higher Medical Sciences), where I was a full-time Cardiology Resident, which included doing 1-in-3 on-calls. During this I had the privilege of working with extremely poor patients who had no means of paying for cardiac care. Since 2015 I have been attending this hospital yearly for 2-3 weeks during my annual leave to perform interventional cases and donate equipment.
- I have participated in medical camps in India and in Malawi, seeing general medical and cardiac cases.
- I attend Health Awareness Days around the country several times a year, which involves screening members of the general public to detect common cardiovascular risk factors like hypertension and diabetes and dispensing medical/lifestyle advice. I have been doing this since 2003.

### **Interests outside Medicine**

---

- Reading, especially classics and spiritual literature
- Golf, badminton, table tennis, cricket
- Travelling – I have been across North and South America, Europe, Africa and India