



## Manchula Navaratnam

Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine

### CLINICAL OFFICES

- **LPCH Cardiac Anesthesia**

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### Bio

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### CLINICAL FOCUS

- Pediatric Anesthesia
- Pediatric cardiac anesthesia
- Anesthesia

### ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine

### PROFESSIONAL EDUCATION

- Board Certification: Anesthesia, The Royal College of Anaesthetists (2007)
- Residency: South East Scotland School of Anaesthesia (2007) Scotland
- Fellowship: Westmead Children's Hospital (2006) Australia
- Residency: South East Scotland School of Anaesthesia (2001) Scotland
- Residency: South Manchester NHS Trust (1999) UK
- Residency: Trafford General Hospital (1999) UK
- Residency: St John's Hospital at Howden (1998) UK
- Internship: South Manchester NHS Trust (1997) UK
- Medical Education: Edinburgh University (1997) UK

### Research & Scholarship

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### CLINICAL TRIALS

- The Hemodynamic Effects of Vasopressin in Patients With Fontan Physiology, Recruiting
- Effects of Different Tidal Volume Ventilation Strategies on Fontan Flow and Hemodynamics, Not Recruiting

## Teaching

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### COURSES

#### 2019-20

- Mending a broken heart: The Anatomy, Physiology and Psychology of congenital heart disease: ANES 74Q (Win)

## Publications

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### PUBLICATIONS

- **Impact of Modified Anesthesia Management for Pediatric Patients With Williams Syndrome.** *Journal of cardiothoracic and vascular anesthesia*  
Schmidt, A. R., Collins, R. T., Adusumelli, Y., Ramamoorthy, C., Weng, Y., MacMillen, K. L., Navaratnam, M.  
2021
- **Comparison of combined heart#liver vs heart-only transplantation in pediatric and young adult Fontan recipients.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*  
Sganga, D., Hollander, S. A., Vaikunth, S., Haeffele, C., Bensen, R., Navaratnam, M., McDonald, N., Profita, E., Maeda, K., Concepcion, W., Bernstein, D., Chen, S.  
2020
- **Management of a Pediatric Patient With a Left Ventricular Assist Device and Symptomatic Acquired von Willebrand Syndrome Presenting for Orthotopic Heart Transplant.** *Seminars in cardiothoracic and vascular anesthesia*  
Flannery, K. M., Kamra, K., Maeda, K., Shuttleworth, P., Almond, C., Navaratnam, M.  
2020: 1089253220949386
- **Pectoral Nerve Blocks Decrease Postoperative Pain and Opioid Use After Pacemaker or Implantable Cardioverter-Defibrillator Placement in Children.** *Heart rhythm*  
Yang, J. K., Char, D. S., Motonaga, K. S., Navaratnam, M., Dubin, A. M., Trela, A., Hanisch, D. G., McFadyen, G., Chubb, H., Goodyer, W., Ceresnak, S. R.  
2020
- **Evolution of Single Ventricular Assist Device Support for the Failing Bi-directional Glenn Patient.** *The Annals of thoracic surgery*  
Maeda, K., Nasirov, T., Yarlagadda, V., Hollander, S. A., Navaratnam, M., Rosenthal, D. N., Dykes, J. C., Kaufman, B. D., Almond, C. S., Reinhartz, O., Murray, J., Chen, S.  
2020
- **The use of prothrombin complex concentrate as a warfarin reversal agent in pediatric patients undergoing orthotopic heart transplantation.** *Paediatric anaesthesia*  
Sisti, D., Williams, G. D., Ding, V., Long, J., Maeda, K., Chen, S., Navaratnam, M.  
2020
- **Bridge to Transplant with Ventricular Assist Device Support in Pediatric Patients with Single Ventricle Heart Disease** *ASAIO JOURNAL*  
Chen, S., Rosenthal, D. N., Murray, J., Dykes, J. C., Almond, C. S., Yarlagadda, V. V., Wright, G., Navaratnam, M., Reinhartz, O., Maeda, K.  
2020; 66 (2): 205–11
- **Peri-operative right ventricular dysfunction—the anesthesiologist’s view.** *Cardiovasc Diagnosis Therapies*  
Navaratnam, M., DiNardo, J. A.  
2020; 10 (5): 1725-1734
- **Pediatric ventricular assist devices: Bridge to a new era of perioperative care** *PEDIATRIC ANESTHESIA*  
Navaratnam, M., Maeda, K., Hollander, S. A.  
2019; 29 (5): 506–18
- **Preoperative Laboratory Studies for Pediatric Cardiac Surgery Patients: A Multi-Institutional Perspective** *ANESTHESIA AND ANALGESIA*  
Jones, S. E., Jooste, E. H., Gottlieb, E. A., Schwartz, J., Goswami, D., Gautam, N. K., Benkwitz, C., Downey, L. A., Guzzetta, N. A., Zabala, L., Latham, G. J., Faraoni, D., Navaratnam, et al  
2019; 128 (5): 1051–54
- **Preoperative Laboratory Studies for Pediatric Cardiac Surgery Patients: A Multi-Institutional Perspective.** *Anesthesia and analgesia*

Jones, S. E., Jooste, E. H., Gottlieb, E. A., Schwartz, J., Goswami, D., Gautam, N. K., Benkwitz, C., Downey, L. A., Guzzetta, N. A., Zabala, L., Latham, G. J., Faraoni, D., Navaratnam, et al  
2019

- **Bridge to Transplant with Ventricular Assist Device Support in Pediatric Patients with Single Ventricle Heart Disease.** *ASAIO journal (American Society for Artificial Internal Organs : 1992)*

Chen, S., Rosenthal, D. N., Murray, J., Dykes, J. C., Almond, C. S., Yarlalagadda, V. V., Wright, G., Navaratnam, M., Reinhartz, O., Maeda, K.  
2019

- **Pediatric ventricular assist devices: Bridge to a new era of peri-operative care.** *Paediatric anaesthesia*

Navaratnam, M., Maeda, K., Hollander, S. A.  
2019

- **Epoprostenol Therapy for a Pediatric Patient With Subacute Heparin-Induced Thrombocytopenia and a Ventricular Assist Device Undergoing Heart Transplant: A Case Report** *A & A PRACTICE*

Navaratnam, M., Williams, G. D., Shuttleworth, P., Almond, C., Maeda, K.  
2018; 11 (12): 329–31

- **Bilateral automatized intermittent bolus erector spinae plane analgesic blocks for sternotomy in a cardiac patient who underwent cardiopulmonary bypass: A new era of Cardiac Regional Anesthesia.** *Journal of clinical anesthesia*

Tsui, B. C., Navaratnam, M. n., Boltz, G. n., Maeda, K. n., Caruso, T. J.  
2018; 48: 9–10

- **LVOT-VTI is a Useful Indicator of Low Ventricular Function in Young Patients.** *Pediatric cardiology*

Navaratnam, M., Punni, R., Ramamoorthy, C., Tacy, T. A.  
2017

- **Perioperative management of pediatric en-bloc combined heart-liver transplants: a case series review.** *Paediatric anaesthesia*

Navaratnam, M., Ng, A., Williams, G. D., Maeda, K., Mendoza, J. M., Concepcion, W., Hollander, S. A., Ramamoorthy, C.  
2016; 26 (10): 976-986

- **Surgical Reconstruction of Tracheal Stenosis in Conjunction With Congenital Heart Defects** *Basic Science Forum of the 58th Annual Meeting of the Southern-Thoracic-Surgical-Association*

Mainwaring, R. D., Shillingford, M., Davies, R., Koltai, P., Navaratnam, M., Reddy, V. M., Hanley, F. L.  
ELSEVIER SCIENCE INC.2012: 1266–73

- **Pediatric pacemakers and ICDs: how to optimize perioperative care** *PEDIATRIC ANESTHESIA*

Navaratnam, M., Dubin, A.  
2011; 21 (5): 512-521