

## **Dr Lee Prior Collier MBBS (Lond) BEng PGDip (Human Factors)**

GMC: 6141355

### **Profile**

*I am an experienced doctor highly skilled in aeromedical transport and neonatal critical care. I have worked in aeromedical transport for seven years, initially within my core specialty of neonatology, and during the COVID-19 pandemic I extended my skills to include adult and paediatric high dependency transfers. From 2021-2024 I served as neonatal clinical lead for a private air ambulance provider arranging, carrying out and supervising neonatal flights, and giving advice and support for adult and paediatric flights. My past experience includes neonatal intensive care, ten years of ground ambulance transfer with the London Neonatal Transfer Service, and formerly general paediatrics, emergency medicine, trauma and orthopaedics and obstetrics and gynaecology. Alongside my flight career my portfolio includes medical informatics; research, development and consultancy for medical devices; module lead for an Advanced Neonatal Practice MSc programme; and teaching and training courses in advanced resuscitation and ground and air transport.*

### **Formal Education and Examinations**

2022-2024	University of Derby Postgraduate Diploma in Ergonomics and Human Factors
2008-2011	Paediatric Specialty Training, Kent Surrey Sussex Deanery ST1-3
2006-2008	Foundation Programme, South-West Thames Foundation School
2002-2006	St. George's Hospital Medical School (now St. George's, University of London) MBBS
1998-2002	University of Sheffield, Bachelor of Engineering BEng (Hons) Computer Systems Engineering
1997	A Levels: Mathematics A, Physics B, History B, Further Mathematics C
1995	GCSEs: 11 grade A-C

### **Certified Courses**

2021	APLS – Advanced Paediatric Life Support Instructor
2021	ARNI – Advanced Resuscitation of the Newborn Infant Provider
2020	ALS – Advanced Life Support [for adults] Provider
2018	CCAT FL - Clinical Considerations in Aeromedical Transport critical care flight course
2016	NLS Instructor (Newborn Life Support RCUK)
2014	GCP (Good Clinical Practice in Research)
2011	Recognition and Response in Child Protection (CPRR)
2011	Neonatal Cranial Ultrasound (Cambridge Perinatal Group)

### **Professional Memberships**

British Association of Perinatal Medicine (BAPM), Trainee Member  
Chartered Institute of Ergonomics and Human Factors (CIEHF), Student Member  
Royal College of Paediatrics and Child Health (RCPCH), Associate Member

## Employment and Experience

**November 2024 - Ongoing**

**Chief Medical Officer**

*SkyCare Repatriation Ltd*

This new private air ambulance service is being developed from a parent company with a decade of experience delivering high quality road ambulance patient transport. I was invited to join the team and lead the development of the adult, paediatric and neonatal critical care flight transport service.

**March 2023 - Ongoing**

**Research Fellow in Neonatology**

*Queen Mary, University of London*

I am part of a research team with interests including neonatal resuscitation, advanced neonatal monitoring and development of artificial intelligence algorithms to aid in neonatal care. Alongside this I deliver clinical service for a private women's and children's hospital as a resident specialist in neonatal intensive care. My special interest is applying Human Factors and Ergonomics science to the development of medical devices.

**September 2021 - Ongoing**

**Locum Consultant Neonates**

*Whittington Health NHS Trust*

I provide ad-hoc locum consultant attending days and on-calls to cover sickness and maternity leave for the neonatal consultant team at Whittington Hospital neonatal unit – a Local Neonatal Unit (Level 2). This usually involves a consultant attending day and night on-call every 6-8 weeks, supervising junior and senior ST trainees to deliver the LNU service.

**September 2023 – August 2024**

**Medical Director**

*Lia's Wings*

Having worked for Lia's Wings charity via Capital Air Ambulance for many years, I was taken on as the charity's medical director in 2023. In tandem with my role as neonatal lead for Capital Air Ambulance I lead a team of consultants and nurses to deliver neonatal intensive care transfers for patients globally. Alongside this I advised on the charity's direction including developing advocacy and support services for families with sick babies or children away from their home region.

**September 2022 – March 2023**

**Specialty Doctor in Neonatal Transport**

*NTS, Royal London Hospital, Barts Health NHS Trust*

Following my secondment to NICU I continued my substantive post as detailed below.

**March 2022 – August 2022**

**Specialty Doctor NICU**

*The Royal London Hospital, Barts Health NHS Trust*

I spent a six-month secondment away from my transport post to work at the Royal London NICU on the middle grade rota. I increased my experience in managing surgical patients and refreshed my general neonatal skills which aren't available in a transport post such as attending deliveries and teaching and supervising juniors. I took part in

the full range of registrar service provision along with some consultant acting-up. It was helpful to take part in the formal teaching programme and 'everyday life' of a busy tertiary NICU and be reminded of the pressures and pleasures of unit-based practice after so many years in transport.

#### **August 2021 - August 2024**

##### **Neonatal Clinical Lead**

*Capital Air Ambulance (Centreline AV Ltd)*

I was the lead clinician for the neonatal service within this private air ambulance company. The neonatal service provides intensive care flights for NHS patients in partnership with Lucy Air Ambulance for Children charity and provides international flights funded privately. The previous company was wound up due to financial pressures from COVID-19, so a new team was established starting almost from scratch. From the 'bare bones' of an incubator and ventilator I arranged purchase of all the medical equipment and consumables and developed the clinical guidelines and training programme to re-establish the neonatal flight team. The service gained neonatal critical care endorsement within the European Aeromedical Institute (EURAMI) accreditation programme. I supported the wider team in developing the adult and paediatric services drawing on my broad aeromedical transport expertise.

#### **January 2021 – August 2023**

##### **Clinical Product Advisor**

*Lantum*

I consulted for Lantum, advising on the modelling and development of software for medical rostering solutions in secondary care that focus on flexibility and workforce wellbeing as a strategy for better service cover and staff retention.

#### **January 2021 – March 2021**

##### **Intensive Care Doctor (Middle Grade)**

*The Royal London Hospital, Barts Health NHS Trust*

During the "second wave" of the COVID-19 pandemic in the UK, I worked ad-hoc shifts in intensive care alongside my normal NHS role. I provided immediate support for ventilated adult patients and supervised junior doctors redeployed from non-ITU training post positions.

#### **August 2020 – October 2021**

##### **Flight Doctor**

*Gama Aviation Plc (ad-hoc private work)*

I undertook regular fixed-wing flight transfers for intensive care neonates and high dependency paediatric and adult patients within the UK and Channel Islands. These consisted of time critical emergency uplift flights from Guernsey and repatriation flights within the British Isles.

#### **April 2020 – May 2020**

##### **Intensive Care Doctor (Intermediate Tier)**

*The NHS Nightingale Hospital, London, Barts Health NHS Trust*

A temporary post as part of the clinical team at the London Nightingale field hospital providing intensive care for ventilated patients with COVID-19. I supervised a group of junior doctors and reported to an intensive care consultant. This provided valuable experience working with critically unwell adults, allowed me to use my transferable skills as a neonatal intensivist and gave insight into working practices and clinical skills that have fed back into my neonatal career.

### **March 2018 – March 2023**

#### **Specialty Doctor in Neonatal Transport**

*NTS, Royal London Hospital, Barts Health NHS Trust*

This was a permanent Senior SAS post with the Neonatal Transfer Service in London. I worked in a team with a nurse and ambulance technician providing neonatal critical care stabilisation and ambulance transfer to a tertiary centre for any sick baby at one of the 28 hospitals within the team's region.

I provided on the road neonatal transport expertise to the team alongside management, service development and quality improvement responsibilities as a Specialty Doctor. During 2021 I started to provide "acting up" consultant cover for the team for attending days and some on-calls in addition to my on-road "middle grade" duties.

During this post I have developed the STAN Course (Stabilisation and Transfer of the Acutely unwell Neonate), currently the only UK formal course dedicated to neonatal stabilisation and transport. I managed the middle grade rota and lead the induction programme for new doctors. I developed a bespoke electronic cloud-based referral and team management system for neonatal transport services and arranged adoption by a software company for formal use within the Trust in accordance with national guidelines for electronic systems.

### **January 2018 – August 2020**

#### **Flight Doctor**

*Capital Air Ambulance Ltd (ad-hoc private work)*

Regular fixed-wing neonatal intensive care air transfers within the UK and internationally. Usually repatriation flights to return babies to a hospital closer to home, with occasional retrieval missions for babies requiring critical care stabilisation and emergency uplift to a tertiary hospital. I completed two long-distance repatriations to/from the USA using commercial transatlantic flights.

### **September 2016 – February 2018**

#### **Senior Clinical Fellow in Neonatal Transport**

*NTS, Royal London Hospital, Barts Health NHS Trust*

I provided care as the on-scene lead clinician during neonatal transfers with remote consultant oversight. I managed the middle grade roster for the team. I began the development of a bespoke cloud-based referral and team management system. I planned and helped to provide the induction programme for new doctors and began development of a video training programme for the transport equipment used by the team. I contributed to the clinical guidelines for the Neomate smartphone app.

### **March 2015 - August 2016**

#### **Specialty Doctor in Neonatology / Paediatrics**

*William Harvey Hospital (Ashford), East Kent Hospitals NHS Foundation Trust*

Worked a full shift middle grade rota for Neonatal Intensive Care Unit, with occasional cover of general paediatrics. Developed clinical guidelines including ventilation during MRI scanning of post-cooling babies. Participated in local multidisciplinary respiratory group for practice development and quality improvement. Played active part in teaching and training of junior doctors.

### **September 2014 - February 2015**

#### **Senior Clinical Fellow in Neonatal Transport**

*NTS, Royal London Hospital, Barts Health NHS Trust*

Neonatal transport fellow for the team covering London. Transported term and preterm neonates between units for medical and surgical intervention or elective repatriation, completing 99 emergency transfers in six months. Participated in quality improvement programmes including developing a service website with parental information, information for other professionals and clinical and operational guidelines.

**March 2014 – August 2014**

**Trust Registrar Community Paediatrics**

*Buckland Hospital, Dover, Kent*

Worked as a middle grade for Community and General Paediatrics, registrar clinics, ambulatory care, liaising with Social Services for medical examinations and reports for professionals' meetings. Provided middle grade cover for general paediatrics and neonatal intensive care unit at night and weekends.

**March 2013 – February 2014**

**Trust Registrar Neonatology / Paediatrics**

*William Harvey Hospital, Ashford, Kent*

Worked as part of the middle grade rota covering a neonatal intensive care unit (level 3), with cross-cover for general paediatrics during weekday nights.

**September 2011 – February 2013**

**Locum Middle Grade Neonatology / General Paediatrics / Community**

*William Harvey Hospital, Ashford, and Buckland Hospital, Dover, Kent*

Provided regular locum middle grade cover for Community Paediatrics, General Paediatrics and neonatal intensive care unit at 50% of whole time equivalent

**September 2010 – August 2011**

**ST3 Neonatology**

*William Harvey Hospital, Ashford, Kent*

From March 2011 acting middle grade on registrar rota for Neonatal Intensive Care. Provided middle-grade cover for general paediatrics including ward, A&E and acute admissions and supervising ST2 and GPST doctors.

**September 2009 – August 2010**

**ST2 Neonatology / General Paediatrics**

*East Kent Hospitals NHS Foundation Trust: William Harvey (Ashford); QEQM (Margate)*

Neonatal Intensive Care Unit first on call. Sole doctor on unit overnight on weekdays with middle-grade cross-cover from general paediatric ward. Acute / General Paediatrics with busy A&E and local neonatal unit. at QEQM.

**September 2008 – August 2009**

**ST1 Paediatrics**

*Maidstone Hospital, Kent*

Acute / General Paediatrics with local neonatal unit and paediatric ED.

**August 2008**

**Emergency Department locum SHO / acting Registrar**

*Kent & Sussex Hospital, Tunbridge Wells, Kent*

**August 2006 – July 2008**

**Foundation Programme: South West Thames Foundation School F2**

*Pembury Hospital and Kent & Sussex Hospital (Tunbridge Wells), Kent*

Obstetrics & Gynaecology; Orthopaedics & Trauma; Accident & Emergency

**Foundation Programme: South West Thames Foundation School F1**

*Medway Maritime Hospital, Gillingham, Kent*

Neonatology with Community Paediatrics; General Paediatrics; General Surgery; Cardiology.

**October 2005 – December 2005**

**Medical Elective**

*Mseleni Hospital, KwaZulu-Natal, South Africa*

Worked at a rural hospital in Zulu South Africa. Gained experience of developing country medicine. Gained skills in cross-cultural history-taking. Learnt to minimise risk in exposure-prone procedures such as lumbar puncture and surgery.

## Clinical Skills and Procedures

I am competent to perform the full range of procedures for neonatal intensive care including intubation, umbilical and peripheral central venous and arterial lines, venous cannulation, lumbar puncture, emergency thoracocentesis and chest drain, CFAM (aEEG) electrode placement and interpretation, cranial ultrasound scanning.

I have a thorough knowledge of the variety of conventional and oscillatory neonatal ventilation modes, their application and optimisation. I am familiar with a wide variety of ventilators including Draeger Babylog 8000, SLE 2000/4000/5000/6000, Accutronic Fabian HFO, SensorMedics 3100A, Stephan FI20 (Globetrotter), Stephan Sophie, Smiths BabyPAC, Leoni Plus, Hamilton T1.

I am familiar with air ambulance configurations of the Beechcraft King Air and Learjet 45 with Lifeport PLUS and have had training for in-flight safety emergencies in these aircraft. I have experience in leading the medical team and ground crew in patient loading and unloading. I have an extensive flight log including remote supervision and direct clinical care for national, international and intercontinental fixed wing flight transfer for neonates.

I have maintained familiarity with examination and clinical assessment of older children and adults through my work in the voluntary sector and as part of the intensive care team at The NHS Nightingale Hospital, London and the Adult Critical Care Unit at the Royal London Hospital during the COVID-19 Pandemic.

My engineering background is helpful for rapidly understanding and troubleshooting medical devices, and this has proved to be advantageous on a number of occasions during patient transfers.

## General Skills

- computer-literate in Microsoft Office and similar packages to produce documents, spreadsheets and presentations;
- experience in mathematics including statistics and able to process data for research and presentation purposes;
- keen on the use of IT in medicine, particularly using smartphones and tablets for clinical team communication.

## Teaching and Training

- I am a module lead for the Queen Mary University of London MSc programme in Advanced Neonatal Practice
- I am a certified instructor in Neonatal Life Support and Advanced Paediatric Life Support.
- I planned and ran the middle grade induction programme for the London Neonatal Transfer Service for five years
- During 2018 I developed the STAN course (Stabilisation and Transfer of the Acutely unwell Neonate) as a formal neonatal transport course. Since then seven successful courses have attracted delegates from across the UK and abroad for two days of teaching and high-definition simulation
- I am part of the development team for the award-winning “Neomate” clinical smartphone app

## Research, Audit, Clinical Governance and Quality Improvement

- During my time at London NTS I developed a computerised referral taking and electronic team management system dedicated to neonatal transport;
- I am research GCP (Good Clinical Practice) trained and have been a local delegate for several clinical trials including PiPS, PLANET and ELFIN;
- during all of my posts I have been actively involved and taken a lead in developing and updating clinical guidelines;
- I play an active part in clinical audit, collecting data and preparing presentations for local and regional meetings;
- I have regularly prepared case presentations for perinatal meetings and mortality review meetings;
- I helped prepare an article regarding neonatal respiratory support equipment which was published in Infant journal.

## Publications

Collier L, Salgin B. The Case for Neonatal Specialist Transport Teams. J Pediatr Clin Pract. 2024 Mar 16;11:200105. doi: 10.1016/j.jpdc.2024.200105. PMID: 38827484; PMCID: PMC11138249.

Collier L. Travelling while pregnant. ITIJ March 2024. (non-PubMed) Available from: <http://www.itij.com/latest/long-read/travelling-while-pregnant>

Collier L. Case study: A tale of two 27-week babies. AirMed&Rescue April 2024 (non-PubMed) Available from: <https://www.airmedandrescue.com/latest/long-read/case-study-tale-two-27-week-babies>