

The Faculty of Intensive Care Medicine

ICM Unit Brief

Part 1 Hospital Details

1.1 Hospital name

King's College Hospital NHS Foundation Trust

1.2 Full address (you **must** include postcode)

Denmark Hill
London
SE5 9RS

1.3 Hospital Telephone number

0203 299 9000

Part 2 ICU Department contact details

2.1 Direct telephone number to Department

0203 299 8226

2.2 Department Email address

Alla.Frolova@nhs.net

2.3 Home page of departmental website

<https://www.kch.nhs.uk/ccu>

2.4 Faculty Tutor name

Dr I Carroll, Dr S Calvert, Dr S Calvert, Dr J Townsend

2.5 Faculty Tutor Email address

kch-tr.KingsfcmTutors@nhs.net

Part 3 Unit Structure

3.1 Number of Consultants

37 (majority full time ICM)

3.2 Percentage of elective vs emergency admissions

22.2% vs 77.8%

3.3 Overview of case mix within the unit

King's College Hospital has one of the largest critical care services in the UK with 7 adult intensive care units over two sites and approximately 3500 admissions per year in nearly every speciality of critical care medicine (except Major Burns, ENT& Adult Congenital Heart Disease). A new 60 bedded unit has opened, making King's one of the largest critical care departments in the UK. The hospital not only serves a diverse local population but operates as one of the four Major Trauma Centres (MTC) within the capital, and as a tertiary services referral centre for cardiac (including primary PCI), neurosciences (including stroke, neurosurgery and spinal surgery), haematological oncology, cystic fibrosis, and hepatobiliary diseases (including transplantation) and nephrology. As a result, King's has an unrivalled patient population in terms of clinical diversity and complexity.

The units on the Denmark Hill site are all recognised for the 3 stages of FICM training. There is also a unit at the hospital site in Bromley, which is recognised for stage 1 ICM trainees as part of their anaesthesia or ACCS training.

The Critical Care Units (CCUs) at King's (Denmark Hill site) are divided into four distinct areas:

Frank Stansil CCU- 14 level II/III beds – predominant focus medical

Christine Brown CCU- 18 level II/III – predominant focus surgical

Jack Steinberg CCU- 18 level II/III – predominantly neurosciences

CCUB – Currently predominately Covid critical care.

CCUA – To open late in 2021

Liver Intensive Therapy (LITU) - 22 level II/III

3.4 Details of training opportunities on the unit

Clinical opportunities:

Trainees will gain experience in all aspects of the management of the wide range of patients we provide specialist care for including: general and specialist medicine, neurosurgery, neurology, major trauma, orthopaedics, general surgery, major hepatobiliary surgery, cardiothoracic, cardiology, renal and haematology (haemato-oncology, sickle and thrombosis) patients. Stage 2 or 3 trainees allocated to the LITU will also gain experience in the critical care management of acute liver failure, decompensated liver disease, and liver transplant and HPB patients.

All trainees are allocated to a base unit. The oncall commitment is either within the critical care, or in the outward facing rotas either as i-mobile (outreach) registrar or senior registrar covering ED referrals including major trauma calls. There is anaesthetic support on call as required. All trainees are allocated a fully accredited educational supervisor at the start of their attachment with whom they agree an individual educational plan to suit their needs.

Stage 1 trainees during at ICM module are based within one of the general units, where they will have sufficient opportunity to complete the necessary competencies, and we facilitate attachments to other units as needed. We also support FICM trainees in acute medicine, the emergency department and anaesthesia as part of Stage 1. The medicine placement has opportunities in acute medicine and some of the medical specialities, according to interest.

Stage 2 trainees are now able to complete their whole subspecialty year at King's. There is a dedicated PICU with tertiary subspecialty care for liver disease including transplantation, neurosurgery, trauma and haemato-oncology, as well as general paediatrics. The neuro module is offered on Jack Steinberg intensive care. There is tertiary level experience in trauma, neurovascular elective and emergency cases, neuro-oncology, stroke, as well as a full range of neurology experience. The cardiac module is offered in a combination of the post-operative cardiac recovery unit and within the intensive care. Patients are cared for after CABG surgery, valve surgery including minimally invasive techniques, cardiac catheter lab services including valve insertions, as well as trauma. Mechanical support devices such as the IABP, impella and VA ECMO are used in selected cases.

Trainees can discuss the final 3 months according to their interest, which can include 3 months on the liver intensive care unit.

Stage 3 trainees have a balanced year including the outward facing rotas, the unit based rota to develop management skills, and time on liver intensive care. We can offer a short placement in the PRUH – a DGH which is part of King's and allows the opportunity to lead wards rounds and develop independent management skills

We offer a full and diverse range of monitoring and supportive care – training and familiarity with the following equipment and procedures will be developed:

- Airway: video laryngoscopy, fiberoptic intubation, percutaneous tracheostomy
- Respiratory: fiberoptic bronchoscopy and broncho-alveolar lavage, Servo-I&U ventilators, NAVA, intercostal chest drain insertion, management of severe acute respiratory failure, NIV and long term respiratory and/ or airway wean
- Cardiovascular: ultrasound guidance for vascular access, invasive monitoring including PiCCO & pulmonary artery catheters, flow monitoring, transthoracic and transoesophageal echocardiography, extracorporeal life support, IABP and Impellar devices
- Renal: acute renal replacement therapies including regional anticoagulation with citrate
- Neurological: external ventricular drains, intracranial pressure monitoring, continuous EEG monitoring, BIS, multimodal neurological monitoring, brain stem death testing and optimisation of the potential organ donor
- Haematological: management of variceal haemorrhage (and insertion of Sengstaken Blakemore tubes), major transfusion & near patient coagulation testing, plasma exchange

The units are fully supported by multi-disciplinary team of specialists; including physiotherapists, pharmacists, speech and language therapists, social workers, palliative care and SNODs and microbiologists.

Trainees are all invited to participate in the research and management projects ongoing within the ICU and emergency departments. Each unit is represented at meetings by a junior, senior and international trainee.

Other opportunities:

- We also have the ability to deliver a programme for several of the Special Skills Years (Neurocritical care, research and education).
- Research Reference (see section on research)
- FICE/CUSIC mentorship
- Speciality Lead Registrar Development Programme (modular programme - Personal Development & Useful Tools/ Working on Projects & Managing Change / The Business of Healthcare / Engagement of Stakeholders)
- Undergraduate Education
- Simulation training and development, airway courses, trauma life support, and liver intensive care study days are all supported through the department.

3.5 Names of Consultants, roles and areas of interest

(roles: maybe due to change in 2019)

Key: ICM= Intensive Care Medicine, MTC=Major Trauma Consultant – team leader, LITU= Liver Intensive Therapy Unit, TPD=Training Programme Director, PRUH = Princess Royal University Hospital (Bromley site of King's), KCL = King's College London, RA=Regional Advisor, C-MD=Corporate Medical Directors

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| Dr Charlotte Anderson | Consultant ICM | Deputy Head of School |
| Dr Milena Angelova- Chee | Consultant ICM | |
| Dr Georg Auzinger | Consultant ICM & LITU | ECMO Lead |
| Dr Eleanor Bates | Consultant ICM & Anaesthesia | |
| Dr William Bernal | Consultant ICM & LITU | C-MD & Caldicott Guardian |
| Dr Michael Berry | Consultant ICM & Anaesthesia | |
| Dr Tom Best | Consultant ICM, & MTC | Clinical Lead |
| Dr Sharon Cain | Consultant ICM | Joint Lead for Risk |
| Dr Simon Calvert | Consultant ICM, Emergency Medicine & MTC | Trust Lead for Simulation FICM Tutor |
| Dr Stacey Calvert | Consultant ICM | FICM Tutor |
| Dr Sergio Canestrini | Consultant ICM | Clinical Lead for Organ Donation |
| Dr Iain Carroll | Consultant ICM & Anaesthesia | FICM Tutor |
| Dr Adam Czapran | Consultant ICM & Trauma | Trauma Governance Lead |
| Dr Laura Dono | Consultant ICM & Trauma | |
| Dr Carole Dangoisse | Consultant ICM & Anaesthesia | |
| Dr Richard Fisher | Consultant ICM | Critical Care Echocardiography |
| Dr Pervez Khan | Consultant ICM & Trauma | PRUH Risk and Governance Lead |
| Dr Brian Hogan | Consultant Hepatology & ICM | |
| Dr Phil Hopkins | Consultant ICM | Lead for Research, Clinical Informatics Lead CRN Lead Critical Care (London South), |
| Dr Tom Hurst | Consultant ICM & HEMS | |
| Dr Sam Hutchings | Consultant ICM | Military ICM & Research Lead |
| Dr Mark McPhail | Consultant ICM | Research |
| Dr Sara Leonard | Consultant ICM & Anaesthesia | |
| Dr Carmen Lopez-Soto | Consultant ICM | |
| Dr Robert Loveridge | Consultant ICM & LITU | |
| Dr Ritesh Maharaj | Consultant ICM | Lead M&M, outcomes & Governance |
| Dr Victoria Metaxa | Consultant ICM, Anaesthesia &MTC | Lead Medical Critical Care & I-mobile (outreach) |
| Dr Christian Michaelis | Consultant ICM & Anaesthesia | |
| Dr Clemens Pahl | Consultant ICM | Clinical lead: Neurocritical Care |
| Dr Chris Palin | Consultant ICM | Site Medical Director, PRUH |
| Dr Claire Park | Consultant ICM, Anaesthesia, MTC & HEMS | HEMS & Military and Pre-hospital |
| Dr Sam Patel | Consultant ICM & LITU | Lead for Infection & Cardiac Critical Care, Deputy Lead for ECMO |
| Dr Tasneem Pirani | Consultant ICM | Lead LITU |
| Dr Rohit Saha | Consultant ICM and MTC | |
| Dr Neeraj Singh | Consultant ICM | Lead PRUH |
| Dr Stephanie Strachan | Consultant ICM | Lead for Medical Staffing |
| Dr Jenny Townsend | Consultant ICM, Anaesthetist &MTC | ICM Medical School Lead, Faculty Tutor FICM |
| Dr Shahana Uddin | Consultant ICM, Anaesthetist &MTC | Clinical Lead for Organ Donation |
| Dr Savvas Vlachos | Consultant ICM | Lead for FSCCU |
| Dr Sancho Villar | Consultant ICM | |

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| Dr Andre Vercueil | Consultant ICM, Anaesthetist &MTC | Regional Lead for Organ Donation |
| Dr Tom Williams | Consultant ICM & Anaesthesia | |
| Prof Julia Wendon | Consultant ICM & LITU | Executive Medical Director |
| Dr Chris Willars | Consultant ICM & LITU | |
| Dr Adrian Wong | Consultant ICM & Anaesthesia | |

3.6 Details of research projects being undertaken within the unit

Intensive care is part of the ACET (Anaesthesia, Critical Care, Emergency Medicine and Major Trauma) medical research group led by Dr Phil Hopkins, Hon Senior Lecturer. The group includes 10 dedicated research nurses, PhD students, MRES students and post-doctoral students. The team is responsible for delivering CRN portfolio research studies across the four specialities as well as a large number of observational and interventional NIHR Portfolio studies, both commercial and non-commercial.

There are also large number of in-house studies / projects being conducted including research into microperfusion, traumatic brain injury, ultrasound, neural ventilation, ECMO, end-of-life care, safety and informatics.

All trainees are allocated to a study on joining King's and expected to contribute as able. At the end of their attachment to King's Critical Care, trainees can receive a Research Reference summarizing their participation and research achievements.

Part 4 Training

4.1 Details of departmental teaching days

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| Mon | pm: | Neuroradiology and general radiology |
| Tues | pm: | ICM teaching (mapped to FICM curriculum) |
| | pm: | ICU echo teaching / training |
| Wed | pm: | Journal Club/Research |
| Fri | am: | Liver teaching |
| | pm: | Neuroradiology |
| Consultant led microbiology ward rounds (days and times are subject to change) | | |

4.2 Details of clinical governance meetings and / or M & M

Weekly Morbidity & mortality Meetings
 Fortnightly research meeting
 Quarterly ICM Audit Meeting
 Monthly Education & Training meeting (with trainee representatives)
 Monthly policies and procedures meeting
 Quarterly Safety and Performance meetings

4.3 Details of in-house courses available

Departmental:

Novice Intensivist Course: three days of seminars and a day of high-fidelity simulation
 Exam Preparation: Practice viva sessions for local Primary/Final FRCA or FFICM candidates
 Trauma Team Members/Leaders Course (simulation based - free)
 Critical Airways Course (simulation based – free)
 King's College Hospital Difficult Airway Course (practical hands on – nominal charge)
 FICE echocardiography (practical hands on training)

Hospital-wide

Grand Rounds – multispeciality weekly meeting
 The Resuscitation Department – Nationally recognised courses including ATLS, ALS, APLS, NILS, FEEL-UK

Post Graduate Centre: (usually free to King's trainees - <http://pgmde.kch.nhs.uk/>)

Training the Trainers
 Research Methodology
 Preparing for Consultant Life
 SLR Development Programme

4.4 Details of junior doctor shift patterns (including on call)

Unit Resident: This consists of 7 teams of 9 made up from CT1 to ST 7 doctors across all specialties (acute and emergency medicine, ACCS, anaesthesia, ICM, CMT). The teams work a full shift rota comprising standard, long days and nights on the intensive care units and rostered annual leave (with the ability to swap).

Inward facing senior fellows: This consists of 3 teams of 8 doctors who work a 1:8 shift. On Long Days or Nights these trainees provide senior cover for the unit residents.

Outward facing senior fellows:

This consists of 2 teams of 8 doctors who work a 1:8 shift as part of the immobile team with 2 senior ICU nurses. One doctor is primarily responsible for critical care support to the wards and outlying high dependency areas (coronary care, cardiothoracic HDU, neurosurgical HDU). The other is primarily responsible for admissions from the emergency department, including trauma as well as coordinating the critical care team. There is anaesthetic support from a team of 5 resident registrars.

All rotas are compliant with both old and new contracts.

4.5 Details of senior doctor shift patterns (including on call)

Each Intensive Care Unit has a dedicated Consultant Intensivist providing round the clock cover for periods of 3 to 7 days at a time. Consultant led multi-disciplinary ward rounds are conducted twice daily. Whilst consultants are non resident overnight they are present for extended periods during weekdays and at weekends and are immediately available for advice and to attend the hospital if required. Continuity of patient care is maintained at times of consultant changeover by formal handover meetings and weekly formal meetings to discuss the management of long-stay patients.

In addition to the ICU dedicated Consultants there is also a consultant intensivist leading the i-mobile (outreach) service between 8am and 8pm and critical care consultants contribute to the resident major trauma rota.

Part 5 Additional information

5.1 Please provide any additional information about the unit

Undergraduate:

As part of Guys, King's, St Thomas's Medical School, there are multiple opportunities to be involved with undergraduate education – either informally as part of day to day clinical practice or more formally including examinations, timetabled teaching / seminars, organisation and delivery of novel / innovative educational projects.