

The Faculty of Intensive Care Medicine

ICM Unit Brief

Part 1 Hospital Details

1.1 Hospital name

Manchester Royal Infirmary

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

Department of Critical Care
Manchester Royal Infirmary
Oxford Road
Manchester
M13 9WL

1.3 Hospital Telephone number

0161 2761234

Part 2 ICU Department contact details

2.1 Direct telephone number to Department

0161 2764712

2.2 Faculty Tutor name

Dr Andrew Martin
Dr Laura Cooper

2.3 Faculty Tutor Email address

Andy.Martin@mft.nhs.uk
Laura.Cooper@mft.nhs.uk

Part 3 Unit Structure

3.1 Number of Beds

48 – 20 Level 3 and 28 Level 2

3.2 Number of admissions

2409 (2018-2019)

3.3 Percentage of elective vs emergency admissions

60% emergency (level 2 and 3), 40% elective

3.4 Overview of case mix within the unit

Financial Year 2018/2019	
Total Number of Admissions	2409
Level 3 within first 24 hours	30%
Admissions from Elective/Scheduled surgical procedures	41.6%
Admissions from Emergent/Urgent surgical procedures	17.7%
Unplanned admissions from any ward	16.3%
Admission from ED	19.9%

3.5 Names of Consultants, roles and areas of interest

Name	Role (eg clinical lead, consultant)	Additional Interests/Roles
Dr Henry Morriss	Chief Clinical Informatics Officer for MFT	Joint Trust Sepsis Lead
Dr Srikanth Amudalapalli	Transfer Lead	Simulation
Dr Shoneen Abbas	Deputy CD for Critical Care at MRI – Lead for Quality and Safety/ Acute medicine liaison	Acute medicine, Clinical and Educational Supervisor Medical examiner
Dr Jonathan Bannard-Smith	Research lead Clinical Lead for Organ Donation	Research / Albumin for resuscitation
Dr Steve Benington	CSS Divisional Postgraduate Medical Education Lead	FICE echo, TOE
Dr John Butler	ACCS training lead	Emergency Medicine
Dr Rachael Challiner	Renal liaison	Renal medicine/ Obstetric Medicine
Prof Daniel Conway	Follow up/outreach lead	Perioperative medicine lead/ Anaesthesia/ MMU Perioperative Medicine MSc Lead
Dr Greg Cook	Group Divisional Clinical Director for Anaesthesia across MFT	Anaesthesia
Dr Tina Duff	Clinical Lead for Ward 14	Foundation Supervisor / Anaesthesia / Echo
Prof Jane Eddleston	Joint Medical Director for MFT	
Dr Bernard Foex	Journal club lead	Emergency Medicine Medical Ethics
Dr Daniel Haley	M+M Lead	Anaesthesia cross-site with Wythenshawe
Dr Emily Johnson	Equipment lead M&M co-lead	Anaesthesia cross-site with Wythenshawe
Dr James Hanison	Clinical Director for Critical Care at MRI	Sedation and Delirium / Research
Dr Ian Tyrrell-Marsh	Clinical supervisor/ Trauma Lead	Prehospital care / Anaesthesia / Trauma
Dr Craig Brandwood	Clinical supervisor/ Nutrition Lead	Anaesthesia / Research / Covid follow up service
Dr Anthony Wilson	Data Lead / Clinical Supervisor	Anaesthesia / PhD in Health Informatics. Chief research informatics lead CRIO
Dr Steve Jones	Deputy Medical Director CSS	Emergency Medicine
Dr John Moore	Clinical Head of Division for CSS, Anaesthesia and Perioperative Care for MFT GM Cancer Clinical Director for Prehabilitation	QI, medical leadership, TOE ERAS+ Medical Lead
Prof Mahesh Nirmalan	Vice dean of Manchester Medical School	Undergraduate education
Dr Mike Parker	Operational CD for Perioperative Medicine	CPET, ICNARC

Dr Mike Sharman	Respiratory liaison	Non-invasive ventilation/ Respiratory Medicine
Dr Dougal Atkinson	Group Clinical Director for Quality & Safety for Critical Care Across MFT/ Trust appraisal lead	CPET, TOE, FICM examiner
Dr Andrew Martin	FICM tutor/ Infection Control Lead	Anaesthesia/ Simulation
Dr Victoria McCormack	Wellbeing Lead	Anaesthesia
Dr Shams Abdelraheem	Audit Lead	Cross-site working with NMGH
Dr Bartosz Cetera	Consultant ICM	Anaesthesia
Dr Laura Cooper	FICM tutor	Anaesthesia
Dr Alex Parker	Clinical Supervisor	Acute Medicine/ Big Data research

3.6 Details of research projects being undertaken within the unit

We contribute to a number of multi-centred studies on the NIHR portfolio, as well as some smaller locally funded projects. We have research opportunities for trainees and junior doctors at a number of levels including academic foundation year placements, research modules incorporated into clinical training and stand-alone clinical research fellow posts.

We have consultants undertaking or due to undertake PhD projects within various areas of healthcare research including Health Informatics and Big Data analytics.

During much of 2020/ 2021, research activity has revolved around many of the COVID-19 relevant multi-national trials. Throughout the organisation of MFT, over 5000 patients have been recruited to COVID-19 related research projects.

Our current research activity outside of COVID-19 includes:

- **A2B** – Alpha 2 agonists for sedation to produce better outcomes from critical illness (A2B Trial): A randomised, parallel-group, allocation concealed, controlled, open, phase 3 pragmatic clinical and cost- effectiveness trial with internal pilot
- **A-STOP** - Antifungal stewardship opportunities with rapid tests for fungal infection in critically ill patients.
- **CADI** – To determine whether circadian disruption on ICU is a consequence of disease or the ICU environment.
- **GENOMICC** – multicentre observational trial evaluating genomic profile of critically ill patients
- **HOT-ICU** – To assess the benefits and harms of two targets of partial pressure of oxygen in arterial blood (PaO₂) in guiding the oxygen administration in acutely ill adults with hypoxaemic respiratory failure at ICU admission.
- **IONA** – To identify novel psychoactive substances that may be involved in toxicity experienced by patients presenting to acute hospitals, especially emergency departments.
- **REALIST** - a randomized, double-blind, allocation concealed placebo-controlled study using human mesenchymal stem cells in patients with moderate to severe ARDS due to COVID-19
- **REMAP CAP** - A Randomised, Embedded, Multi-factorial, Adaptive Platform Trial for Community-Acquired Pneumonia including COVID-19
- **RECOVERY** – multiplatform RCT evaluating interventions to treat hospitalised patients with COVID-19
- **TAME** – To determine whether targeted therapeutic mild hypercapnia (TTMH) improves neurological outcome at 6 months compared to standard care (targeted normocapnia (TN)) as assessed by the Glasgow Outcome Scale Extended (GOSE) method.

3.7 How is the unit staffed

ICU – 20 beds. 1:1 nursing to patient ratio. 3 consultants during daytime hours. 5 junior doctors.
 HDU – 20 beds. 1:2 nursing ratio. 2 consultants during daytime hours. 3 junior doctors.
 Elective HDU – 8 beds. 1:2 nursing ratio. 1 General Anaesthesia consultant during daytime hours with support of a critical care consultant. 1 junior doctor

Out of hours – no change to nursing staff ratios. 2 consultants and 5 junior doctors.

Part 4

Training

4.1 Details of training opportunities on the unit

The unit provides a wealth of experience for trainees keen to develop their knowledge and clinical skills.

We are able to provide clinical experience in the following ICM training modules for Stages 1 to 3 –

- Resuscitation and initial management of the acutely ill patient.
- Diagnosis, assessment, investigation and data interpretation in range of situations.
- Acute and Chronic disease management in the full range of organ systems.
- Management of the high-risk surgical patient as well as peri-operative care of transplant patients.
- End of life care
- Transport
- Management opportunities.

In addition, we have the opportunities to experience more specialist care including –

- Management of severe respiratory failure
- Management of specialist tertiary patient groups including:
 - Haematological oncology including post-BMT patients.
 - CAR-T patient care.
 - Renal and pancreatic transplant surgery.
 - Lower gastrointestinal surgery.
 - Renal medicine.
 - Hepatology including availability of TIPS.
 - Hepato-pancreato-biliary surgery.
 - Major maxillofacial surgery.
 - Tertiary obstetric services.
 - Major vascular surgery.
 - Trauma MTC.
- Transoesophageal echocardiography, FICE transthoracic echocardiography, thoracic ultrasound, cardiac output monitoring.
- Cardiopulmonary exercise testing.
- Informatics and use of medical data to improve care

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, percutaneous tracheostomy.
- **Respiratory:** fiberoptic bronchoscopy and broncho-alveolar lavage, 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 pulmonary artery catheters, flow monitoring, transthoracic and transoesophageal echocardiography.
- **Renal:** all forms of acute renal replacement therapies.
- **Neurological:** BIS, 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 unit is fully supported by multi-disciplinary team of specialists; including physiotherapists, pharmacists, speech and language therapists, palliative care, SNODs and microbiologists.

4.2 Details of departmental teaching days

Tuesday lunchtime trainee led teaching
12.00-13.00
Thursday protected trainee teaching 1300-1700 including journal club.
Regional ICM study days.

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

Departmental audit meeting 4-monthly.
Quality & Safety clinical governance meeting monthly on a Tuesday.
Wednesday M+M 13.00-14.00
Monthly consultant meetings.

4.4 Number of trainees on each tier of the rota

9 on the senior tier

– Mix of

- ST5-7 ICM trainees.
- Senior Clinical Fellows with prior critical care experience.

23 on the middle and junior tier

– Mix of

- ST3-5 ICM trainees.
- ACCS CT1-2.
- Anaesthesia trainees CT1-ST7.
- IMTs.
- Junior clinical fellows (often 'FY3-4' period).
- 2 FY2s.

Our clinical fellows come from a mix of UK and foreign graduates.

6 Advanced Critical Care Practitioners.

1 Trainee Advanced Critical Care Practitioners.