



MAC Clinical Research Sleep Laboratory



We conduct sleep assessments at our Care Quality Commission (CQC) registered sleep clinic, which has been tailored to conduct highly specialised sleep research studies and healthcare services.

Regulated by



We have state-of-the-art facilities to ensure we provide high quality diagnostic sleep analysis



Each room comes with complete soundproofing as well as a sleep research approved wooden bed and bed linen for a comfortable sleep



Ability for overnight PK measures with samples drawn external to the room to minimise sleep disturbance



Each room has an entrance lobby for sound and light pollution protection, with Melatonin Levels maintained by controlled colour changeable room lighting and windowless rooms



All rooms are monitored by a central nursing station by CCTV, with intercoms to communicate with occupants



Ability to house a patient and their carer, or a child and their guardian for paediatric studies

In addition to conducting studies, our sleep clinic helps patients referred by their GP; alleviating pressure from the NHS and allowing people to be diagnosed quicker

The sleep laboratory offers assessments for a wide range of research areas

- The regulation of human sleep by circadian rhythmicity
- The effects of light on sleep, performance and circadian rhythms
- Ageing, sleep and circadian rhythms
- Hypersomnia

- The effects of insufficient sleep on cognition, mood and metabolism
- Biomarkers of sleep and circadian rhythm
- Insomnia
- Sleep Apnoea

- Mathematical modelling of sleep and circadian rhythms
- Nocturia
- Excessive sleepiness
- Restless leg syndrome
- Neurodegeneration, sleep and circadian rhythms

Assessments & Techniques

➤ Polysomnography (PSG)

Used to diagnose a variety of sleep disorders through the study of sleep stages and cycles.

➤ Multiple Sleep Latency Test (MSLT)

Identifies any excessive daytime sleepiness and detects potential sleep disorders associated with increased hypersomnia, usually used in conjunction with an overnight PSG.

➤ Routine Electroencephalogram (EEG)

Monitors the electrical activity of the brain and is used to determine any abnormal brain waves.

➤ Sleep deprived- Electroencephalogram (EEG)

Records electrical activity produced by the brain whilst asleep and is most often used in the investigation of patients who have seizures (fits) or blackouts.

➤ Ambulatory- Electroencephalogram (aEEG)

Records up to 72 hours of brain activity within the home environment using a portable EEG recorder.

➤ Maintenance of Wakefulness Test (MWT)

Identifies the severity of symptoms in people experiencing sleep disorders such as narcolepsy and sleep apnoea to assess the success of current treatment.

MAC Sleep Unit Technologies and Equipment

- High definition Pan, Tilt & Zoom camera with infra-red
- Xltek Video EEG desktop recording system
- Specialist techniques including pharmacodynamic measures, lumbar punctures, aseptic techniques to support complex procedures
- Xltek PSG system
 - ThermoCan thermistor & nasal cannula
 - Piezoelectric snore sensor
 - LNCS Adhesive oximetry sensor
 - XactTrace Abdomen & Chest Respiratory Band Kit with integrated ECG analysis
 - Option to record vital signs available alongside sleep waveforms.
 - Xltek Brain Monitor with integrated pulse oximetry, EMG, EOG, respiratory and flow recording.
 - Leg electrodes to record movement for limb movement disorder (RAT and LAT)
 - Body position analysed by body position sensor and video

Sleep Research Senior Team



Jorge Costa
Head of Neuroscience



Bev Doyle
Registered Nurse

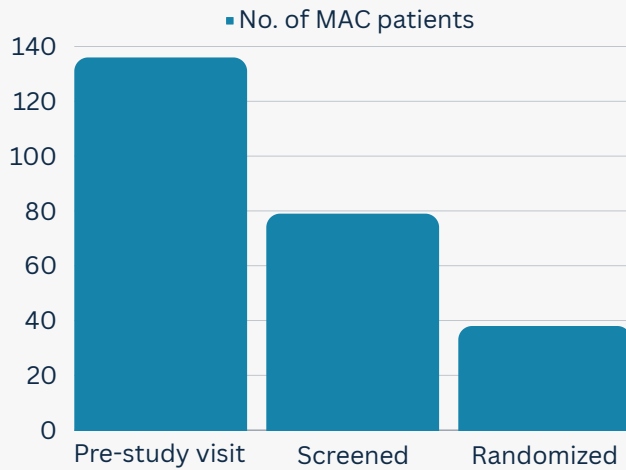


Teresa Cullen
Clinical Research Scientist

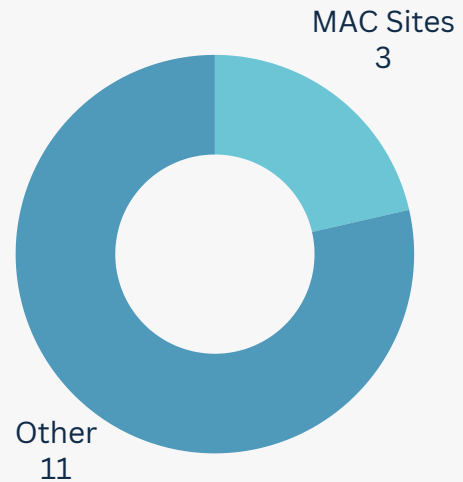
Case study

Sleep Study in Major Depressive Disorder - Phase III

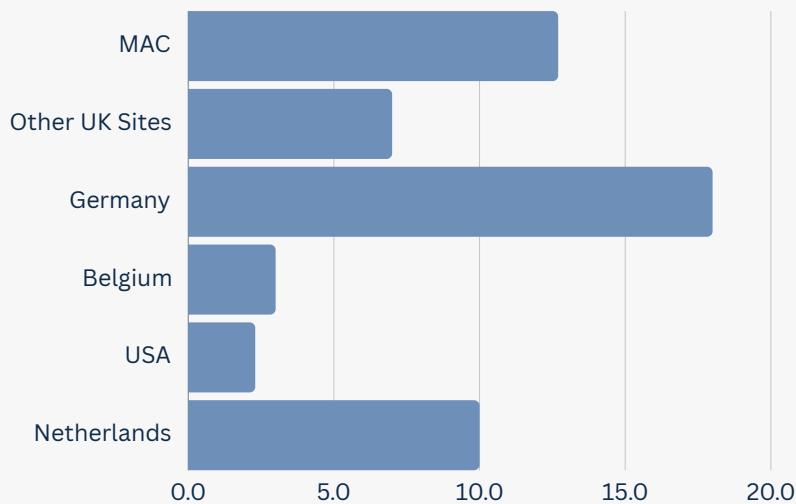
Recruited Patients



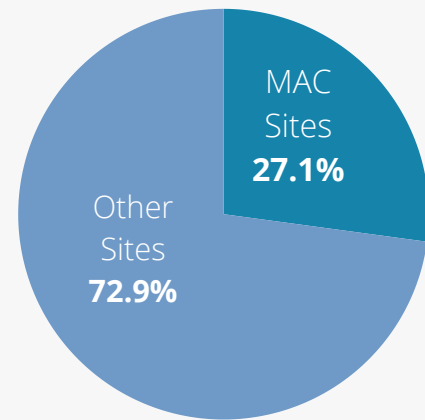
Number of Sites



Average volume of patients per Site



% of MAC recruited patients



MAC outperformed many other sites resulting in the UK being the top recruiting country for this study

MAC Clinical Research

- Over 30 years' experience in conducting clinical studies
- Full-service CRO with global reach
- 8 fully-owned research facilities in the UK
- Experts in healthy volunteer and patient recruitment



3-year summary

120+

SPONSORS

230+

STUDIES

40+

INDICATIONS

19

FIH STUDIES

Our Services



CLINICAL RESEARCH SERVICES

- Project Management**
- Clinical Operations**
 - Site Monitoring
 - Site Management
 - Trial Feasibility
- Pharmacovigilance**
- Regulatory Affairs**
- Biometrics**
 - EDC
 - Data Management
 - SAS Programming
 - Biostatistics
 - Medical Writing
- Vendor Management**
- Randomization and Trial Supply Management**
- Digital Solutions**
 - Electronic Patient-Reported Outcomes (ePRO)
 - eConsent
- Medical Monitoring**



SITE & PATIENT SERVICES

- Participant Recruitment**
- Participant Retention**
- Global Investigator Sites**
- Network of Fully-Owned Investigator Sites**
 - Sleep Laboratory
 - Early Phase Unit
 - Psychedelic Testing Suites
 - Phase I - IV Research Facilities
 - Memory Assessment Research Centre



SCIENTIFIC SOLUTIONS

- Human Models of Disease**
- Scientific Services and Endpoint Assessments**
 - Cardiovascular Assessments
 - Cognitive and Neuropsychological Assessments
 - Dermatology Assessments
 - Imaging Assessments
 - Neurophysiology Assessments
 - Pain Assessments
 - Other Assessments
 - Rare diseases
- Sleep Assessments**
- Psychedelics**
- Training**



PHARMACEUTICAL SERVICES

- GMP Manufacturing**
- In-House Pharmacy**
- Global Clinical Supplies**
- QP Release**
- IMP Management & Distribution**
- Controlled Drug Services**
- Laboratory Services**
 - Clinical Pathology
 - Bioanalytical Services



STRATEGIC CONSULTANCY

- Therapeutic Area Expertise & Study Development**
- Scientific Solutions & Pharmacodynamics**
- Clinical Science & Development**
- Medical Strategy, Input & Expertise**
- Statistical Analysis, Planning & Advice**
- Medical Writing**
- Laboratory Study Design, Methods & Conduct**

Follow us on social



Visit macplc.com for more information