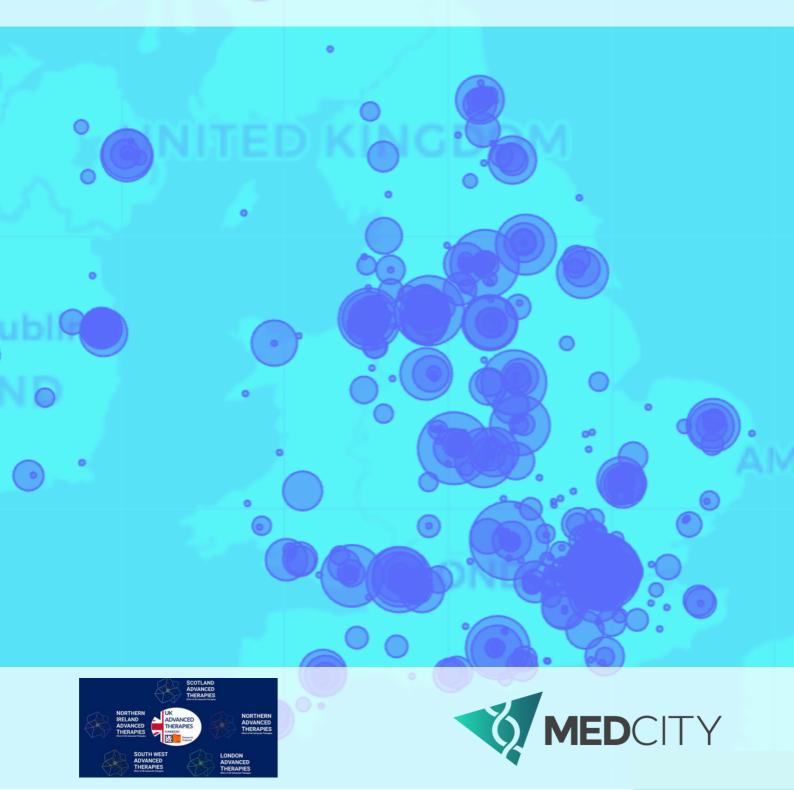
Commercial Clinical Trials London & UK data analysis & heatmap





FOREWORD

• There is no doubt that the UK has great strengths in NHS infrastructure to conduct clinical trials, excellent science and research capabilities, and a forward-thinking regulatory environment. We need a way to have visibility of where these clinical trials are conducted and where that research expertise is.

One of MedCity's roles is to support the navigation of our complex ecosystem. This report and heatmap will help researchers, innovators and investors to identify areas of opportunity. London's strength in advanced therapies clinical trials is a superb exemplar.

> **Neelam Patel** CEO, MedCity



• The Clinical Trials Map and report allows analysis of our UK portfolio of trials in fields relevant to cell and gene therapies such as oncology. It is an invaluable tool not only for examining trends but also for setting out strategies and developing collaborative work.

Francesca Gliubich

Director, UK Advanced Therapies Interim Director of Operations, Faculty of Medicine and Dentistry, Queen Mary University of London





Commercial Clinical Trials in London & the UK

A ten-year analysis and resource to support future activity

New data analysis developed as a part of a collaboration between UK Advanced Therapies and MedCity, highlights the consistent strength of London for life sciences clinical trials. This paper, focused on London-based activities, can be used as a template and resource for identifying expertise and supporting establishment of potential new collaborations UKwide. The findings, reflected in a **new heatmap of clinical trial activity**, confirm London as a hotspot for commercial trial activity, especially in areas relevant to cell & gene therapy such as oncology. The map is designed to aid navigation to UK research-intensive areas for investment and collaboration.

Together the map and discrete data analysis provide a resource for national and international biotech and pharma companies planning clinical trials, giving UK-wide visibility of centres of excellence according to location, disease and intervention expertise.

Data was collected from the NIHR Clinical Research Network (CRN), representing the past 10 years of commercial clinical trial activity across the CRN's 15 local CRNs in England. Of the 15 networks, London data was aggregated from three London-region CRNs – North West London, South London and North Thames. North Thames supports the delivery of high-quality health and social care research across parts of London, Essex, Bedfordshire and Hertfordshire.

Compared with the rest of England, London has attracted 26%, or 7,770 of the 29,563 commercial trials conducted in the past 10 years (Figure 1).

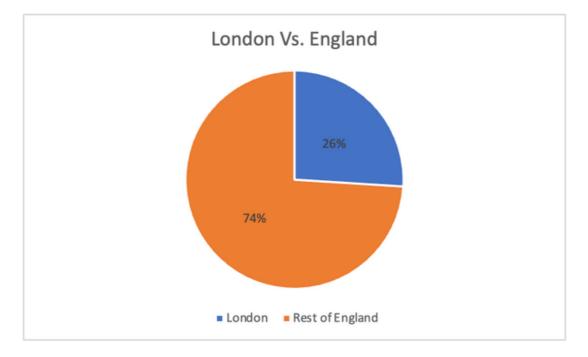


Figure 1



Figure 2 below shows the distribution of trials over 10 years across the NIHR CRNs. London CRNs conduct proportionally more unique clinical trials.

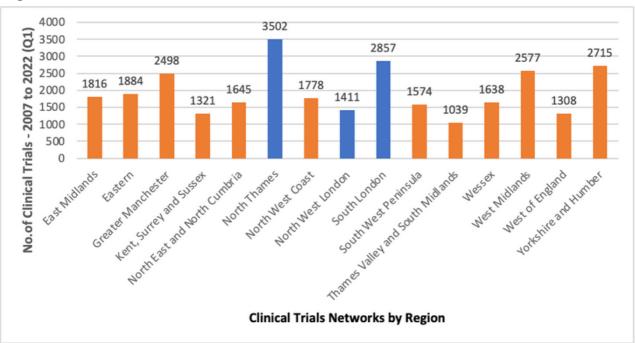


Figure 2

The UK has always been one of the best places in the world to conduct fast, efficient, cutting-edge clinical research and the London landscape is highly reflective of this.



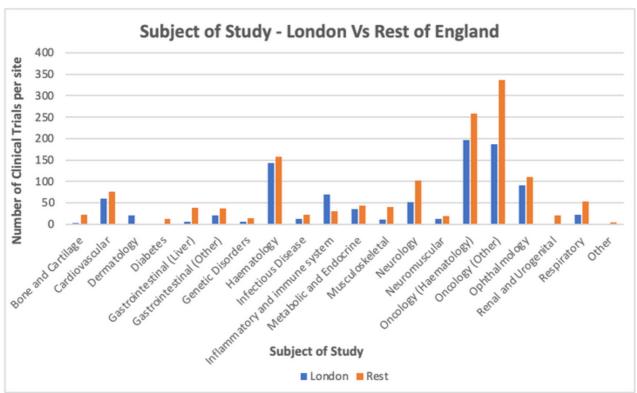


Figure 3 (previous page) confirms London's relative strengths in different disease areas. London is the only region in England to conduct trials in dermatology. Cancer trials are the most common. Oncology accounts for 27% of total clinical trials in England, with London oncology trials comprising 32% of the total. Figure 4 below identifies the top five oncology sub-specialties for trials in the capital (and extending north in the case of North Thames).

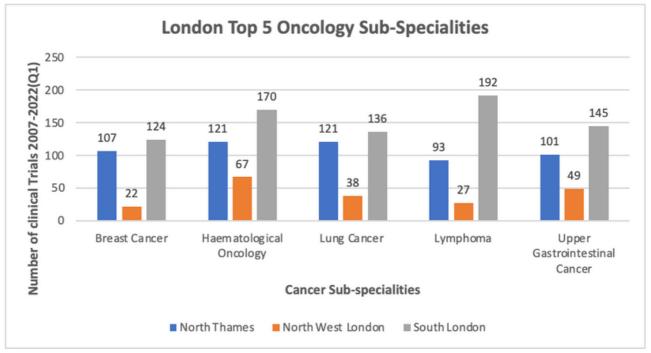


Figure 4

According to <u>research by The Association of the British Pharmaceutical Industry (ABPI)</u>, and highlighted by the <u>Lord O'Shaughnessy review</u>, industry-backed clinical trials started in the UK annually fell by 41% between 2017 and 2021. The NIHR data confirms a decline in overall clinical trials activity by new trials initiated per year, although London's contribution of around 30% of clinical trials compared to the rest of UK remains constant (Figure 5).

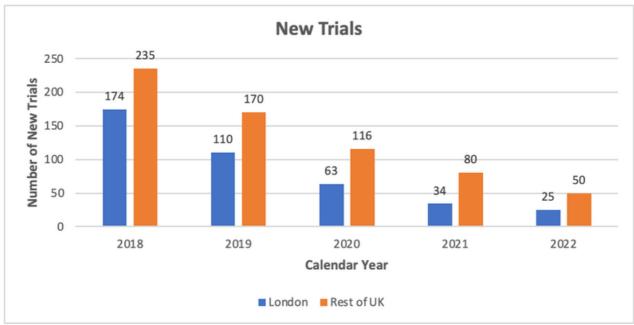


Figure 5



Hotspot for Advanced Therapy Trials

Further data from the Cell & Gene Therapy Catapult (CGCT) reinforces London as particularly strong in advanced therapies, which are increasingly deployed in oncology trials, especially rare forms of cancer where no other viable treatment alternatives exist.

According to the Catapult's 11th annual UK Advanced Therapy Medicinal Products (ATMP) Clinical Trials Report, the UK remains a global leader in clinical research, with total ongoing trials increasing from 168 in 2021 to 178 in 2022, and the UK represented in 8% of all global trials. This contrasted with a 13% decline globally in ATMP trials. Moreover, 80% of the UK's ATMP clinical trials were commercially sponsored.

Oncology accounts for most UK cell & gene therapy trials followed by haematology and ophthalmology. London dominates as a trial destination, with four of the top five sites in the capital: University College London, Great Ormond Street Hospital for Children, Guy's and St Thomas' NHS Foundation Trust and Moorfields Eye Hospital NHS Foundation Trust. Figure 6 below indicates the top five UK sites for ATMP clinical trials, 2012 to 2022.

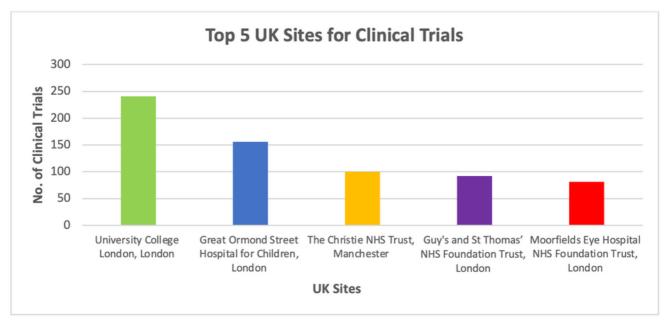


Figure 6

Across all UK sites, macro-level clinical trial activity is indicated on the <u>MedCity Clinical</u> <u>Trial Heatmap</u>, searchable by location, disease state and intervention type. Developed in collaboration with Tom Foord, a junior NHS doctor, the map reflects trials registered with the ISRCTN, a primary clinical trial registry recognised by WHO and ICMJE.

All Clinical Trials of Investigational Medicinal Products (CTIMPs) (and later, all interventional studies) in the UK that receive a favourable Research Ethics Committee (REC) opinion will be automatically submitted to ISRCTN using data from the HRA's systems unless a deferral is agreed or it is registered with ClinicalTrials.gov instead.



Acknowledgements

The data analysis was made possible through the support of UK Advanced Therapies and with the cooperation of the NIHR Clinical Research Networks. The heatmap of clinical trials has been developed by Tom Foord, a former MedCity intern and now NHS junior doctor.

ABOUT UK Advanced Therapies (UKAT)

UKAT is a UK-wide network that aims to catalyse UK capabilities and outputs in advanced therapies, through fostering collaborative work, facilitating commercial partnerships and creating a microclimate for innovation. UKAT was born in 2021, as an expansion of the successful London Advanced Therapies (LAT) programme launched in 2019 and funded by Research England. The "network of networks" comprises South Eastern Advanced Therapies, Northern Ireland Advanced Therapies, Scotland Advanced Therapies and Northern England Advanced Therapies.

ABOUT MedCity

MedCity is the life sciences cluster organisation for London. MedCity fosters collaborations between biotech, medtech and pharma companies and the capital's life sciences ecosystem to supercharge innovation, drive inward investment and build skills and talent across the sector in the UK. MedCity works within London & Partners, London's business growth and destination agency, to consolidate the promotion of life sciences in London.

ABOUT the NIHR Clinical Research Network (CRN)

The NIHR Clinical Research Network (CRN) maintains data to help coordinate and manage a national portfolio of clinical research. NIHR uses Central Portfolio Management System (CPMS) - a central repository of research activity and management information for both commercial and non-commercial studies. CPMS holds more than 10 years of data on more than 26,000 studies that have recruited in excess of 9 million participants.

ABOUT Tom Foord

Tom is an NHS junior doctor working at the Queen Elizabeth Hospital Birmingham, with an interest in life sciences research and future technologies. Previously an intern for MedCity, he worked on projects focusing on health data storage and utility in the Greater London area. Following on from this work, the Clinical Trials Map was developed in collaboration with MedCity to visualise clinical trial registry data and locate centres of excellence for different diseases and therapies.