Royal College
of Surgeons
of England
ADVANCING SURGICAL CARE

Job Title - Data Scientists x 3
Salary - £39,432 to £ 51,156 per annum depending on qualifications and experience
Contract Type - Full-time (35 hours), fixed term contract (2 roles until 30 September 2027, 1 role for 12 months)
Location – This role is part of the Clinical Effectiveness Unit – National Cancer Audit Collaborating Centre (NATCAN), based at the Royal College of Surgeons of England. We fully support flexible working, from our superb offices in Holborn and from home. We do require staff to spend minimum 20% of their time in the office. This is subject to role requirements.

About the roles
The roles provide a unique opportunity to work at a new national centre of excellence to help strengthen NHS cancer services and reduce variation in care. The roles are based at the National Cancer Audit Collaborating Centre (NATCAN) within the Clinical Effectiveness Unit (CEU), jointly run by the Royal College of Surgeons of England (RCS England) and the London School of Hygiene and Tropical Medicine.

These are key roles in data science and reporting in NATCAN, working closely with senior cancer specialists, clinical fellows, methodologists, data managers, and other multidisciplinary members. The post holders will develop advanced analysis and research skills. Having large detailed linked datasets provides opportunities to be involved in methodological development and in epidemiological studies assessing the quality of care and answering the most pressing questions about why some cancer patients receive different treatments and outcomes than others. The results of the work will be disseminated as audit reports, dashboards, peer-reviewed academic papers, and conference presentations. The post holders will also support developments to improve the efficiency of data analysis and reporting within the centre, working on the data flow into and within NATCAN, data validation, data science processes, automated reporting, state-of-the-art data visualisation and dashboards.

Responsibilities
• Carry out statistical analyses to:
- describe the cancer care and outcomes across different NHS organisations
- examine how different patterns of care may influence patient outcomes
- support quality improvement initiatives
• Extract, wrangle and curate large scale linked clinical datasets ready for analysis using SQL or statistical software
• Develop reusable data pipelines and apply algorithms to derive required variables
• Produce reports, dashboards and data visualisations to support local quality improvement
• Ensure projects comply with information governance policies
• Communicate findings in seminars, conference presentations, reports and academic journals

About you
We are looking for applicants with

- Bachelor Level/ Higher degree in medical statistics, data science, epidemiology, operational research or equivalent academic qualification
- A good understanding of health-related research methods and study designs
- Experience of undertaking analyses using large complex datasets in a statistical package
- Evidence of contributions to written output, preferably peer-reviewed
- Experience of applying information governance principles to health care data

What we can offer you
- 27 days paid holiday + bank holidays and up to 4 college closure days
- Flexible working
- Enhanced contributory pension scheme & other leave entitlements
- Variety of learning and development opportunities
- Wellbeing programme & Employee Assistance Scheme

Interested Candidates:

If you wish to apply please email your CV together with a cover letter to RCSHR@rcseng.ac.uk. The cover letter should concisely address each of the essential criteria.

Any personal data collected from you, or that you provide to us, will be processed by us in accordance with our recruitment processes. If unsuccessful in your application, your information will be held by us on our database for a period of 6 months before deletion. If you would like your information removed sooner, please contact RCSHR@rceng.ac.uk

Closing date: Sunday 21 September

If you would like to find out more about the roles please get in touch with Kate Walker, Senior Statistician, National Cancer Audit Collaborating Centre on kate.walker@lshtm.ac.uk

The Royal College of Surgeons of England is an Equal Opportunities Employer. We are open to all talent and we actively ensure that all qualified applicants will receive equal consideration for employment without regards to age, disability, gender reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation.

The Royal College of Surgeons of England is committed to protecting your privacy. We are registered as a data controller with the Information Commissioner's Office (ICO). All College employees are responsible for records held, created and used as part of their work for the College including patient/client, corporate and administrative records. Records are managed according to the requirements of the Data Protection Act 2018 and ensure confidentiality. The College ensures that staff are trained to handle the information you submit to us with care and discretion, seeking advice where necessary.

National Cancer Audit Collaborating Centre
Evaluating and where necessary improving the treatment for cancer patients is a key priority for the NHS Cancer Programme, and the Quality Statement for Cancer Wales. The Healthcare Quality Improvement Partnership, on behalf of NHS England and the Welsh Government, has commissioned the development and establishment of a new centre of excellence for national cancer audits.

NATCAN is part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). NATCAN is home to all ten national cancer audits. This includes new audits in breast cancer (primary and metastatic), ovarian, pancreatic, non-Hodgkin lymphoma and kidney cancer. In addition, this includes to existing clinical audits in prostate, lung, gastro-oesophageal and bowel cancer. These audits have helped to identify and address variations in cancer care across England and Wales and improve outcomes for patients. They have also promoted quality improvement initiatives within NHS cancer services and identified best practice.

NATCAN aims to:

1. Provide regular and timely evidence to cancer services of where patterns of care in England and Wales vary.
2. Support NHS services to identify the reasons for the variation in care in order to guide quality improvement initiatives.
3. Stimulate improvements in cancer detection, treatment and outcomes including survival.

NATCAN began on the 1 October 2022 in the CEU, a collaboration between the RCS England and LSHTM. NATCAN collaborates closely with professional groups, clinicians and patient charities to ensure that all relevant stakeholders inform the quality improvement goals of each audit. NATCAN has approximately 40 staff from a range of disciplines including statistics, data science, health services research, epidemiology, healthcare quality improvement and clinical audit management. It is led by Dr Julie Nossiter, Director of Operations, NATCAN; Prof Ajay Aggarwal, Clinical Director, NATCAN; Prof David Cromwell, Director of the CEU and Professor of Health Services Research, LSHTM; Prof Kate Walker, Professor of Medical Statistics, LSHTM; and Prof Jan van der Meulen, Professor of Clinical Epidemiology, LSHTM.

NATCAN is a key source of information that supports various quality assessment and improvement activities, both at a local level (by NHS trusts and boards, Cancer Alliances, Integrated care Systems) and at a national level (e.g., CQC inspection and regulatory work). The activities of NATCAN and the individual audits will drive quality improvement across the country aiming to help cancer services reach the highest standards possible.

Clinical Effectiveness Unit
The CEU is a collaboration between the RCS England and the Department of Health Services Research & Policy of the LSHTM.

The work of the CEU involves carrying out national clinical audits, developing audit methodologies and producing evidence on clinical and cost effectiveness. An essential element of the CEU's strategy is that it considers audit projects as e*pidemiological studies* of the quality of hospital care. Epidemiological methods are used to generate high quality evidence on the *processes* and *outcomes* of hospital care as well as on their *determinants.* Another important feature of the CEU's strategy is the emphasis it gives to joint clinical and methodological leadership.

The CEU has 45 staff members, of whom 6 are academic staff members of the LSHTM. The background of the staff demonstrates the multidisciplinary character of the Unit (medicine, health services research, medical statistics, epidemiology and public health). The Unit's Director is Professor David Cromwell.