Cancer Analyst for Analysis of the Epidemiology of Cholangiocarcinoma in England

**Accountable to:** AMMF/ PHE Senior Analyst  
**Hours:** 37.5/week  
**Duration:** One year fixed term  
**Location:** Flexible across national bases but post holder must be able to travel to London on a regular basis  
**Pay Grade:** £27,527 - £33,098 (+ London Weighting if appropriate)

### Background

Cholangiocarcinoma (CCA) is a malignancy arising in the bile ducts in and around the liver. This cancer carries a dismal prognosis, the overall 5 year survival is only 5%. Although CCA is a relatively rare cancer, reported incidence and mortality rates of different sub-types of CCA have dramatically changed over recent decades, according to a variety of international studies, including from the UK. There appears to be an ongoing dramatic rise in the intra-hepatic (arising within the liver) variety of CCA in the UK and several other countries. However, there has been debate as to whether these data are accurate, or artefactual due to coding or other issues. CCA are notoriously difficult to accurately diagnose as there are no accurate biomarkers, nor any definitive imaging criteria to distinguish CCA from metastatic liver cancer, and obtaining histological confirmation is often difficult due to the anatomical location of the cancer. Moreover, although there are some recognised risk factors for CCA, most cases are sporadic and no known underlying cause is found. The only hope of cure from CCA is early resection, but most patients present too late for this option. National guidelines recommend all cases are discussed at regional centres, but it is unclear if there is regional equality in terms of specialist referral and access to treatment.

The post holder will work on an important epidemiological project, analysing incidence/mortality time trend data for England for the relevant cancer codes, alongside clinically relevant breakdowns. This is an exciting opportunity to work on the most definitive study of CCA epidemiology to date, in conjunction with the AMMF, the UK’s only dedicated Cholangiocarcinoma Charity, international experts in CCA from Imperial College London and in collaboration with Public Health England’s (PHE) National Cancer Registration and Analysis Service (NCRAS).

We aim to employ a dedicated analyst with a strong statistical background and experience of routinely collected health data to work specifically on this 12 month project.
The Role
This project aims to address several urgent questions relating to the epidemiological trends of CCA. You will be required to have demonstrable skills in understanding and manipulating large amounts of data from a range of sources. You will have skills in analyses, interpretation and presentation of public health and cancer data. You will be comfortable working in a remote-managed setting.

You will be an excellent communicator, building strong relationships and working collaboratively with key stakeholders in order to obtain the data needed for this important partnership.

You will work with colleagues to deliver NCRAS’s analytical function for the AMMF/PHE partnership. You will be based at an NCRAS centre, working closely and reporting to AMMF/NCRAS Steering group at regular meetings in London.

NCRAS office bases
- Birmingham (St Philip’s Place, B3 2PW)
- Bristol (Rivergate, BS1 6EH)
- Cambridge (Victoria House, CB21 5XB)
- London (Skipton House, SE1 6LH)
- Manchester (Piccadilly Place, M1 3BN)
- Nottingham (Seaton House, NG2 4LA)
- Oxford (Chancellor Court, OX4 2GX)
- Sheffield (Vulcan House, S3 8NH)
- York (West Offices, YO1 6GA)

Specific responsibilities
- Applying specialist analytical, statistical and epidemiological methods to highly complex data from a variety of sources to routine and ad hoc analytical projects and tasks as well as providing specialist advice on the appropriate use of this information.

- Acquiring and maintaining a thorough understanding of relevant core datasets, including potential uses and limitations, and participating in dataset user groups where appropriate. Working with the AMMF/NCRAS Steering committee to optimize use of new data sources and identifying new and innovative ways to analyse and present intelligence. Engaging with stakeholders to ensure analyses are valid and interpretation is clinically accurate.

- Using a variety of methods including written briefings and oral presentations to interpret and communicate outcomes of highly complex data analyses to both non- statistical and statistical professionals and stakeholders, determining the appropriate level of complexity according to the needs of the audience.

- Taking a lead role in NCRAS's analytical capability, planning, managing and delivering on a range of projects requiring complex analytical input from other PHE and external colleagues, including data output, workloads and delivery timescales.
• Supporting and promoting the use of NCRAS's quality assurance procedures and standard operating procedures, including compliance with corporate policies in relation to security, confidentiality and release of information.

• Attending national meetings with key stakeholders.

• Supporting the local and national translation of outputs through awareness raising, oral presentations and written briefings or reports as well as managing and contributing to the production, publication and dissemination of reports, epidemiological studies and any other outputs as identified by the AMMF/NCRAS partnership.

• Working with the team to ensure the effective use by the end user of nationally developed tools and resources.

**Accountability**
This is an AMMF/NCRAS Partnership post. The post holder will be employed by AMMF and subject to AMMF/NCRAS’s terms and conditions of employment as set out in their contract.

The post holder will be accountable to the Steering Group, composed of PHE/NCRAS Senior Analysts and representatives from AMMF, for their work programme and to the Programme Manager for any employment matters.

**Information Governance**
The post holder will ensure that all data transfer arrangements, storage and use, and handling of personal sensitive health data meet AMMF, PHE, and the NHS's information governance requirements.

**General**
• Identify own learning needs; locate appropriate training resources (e.g. books, web tutorials) to address these needs;

• Provide education and training to others where appropriate;

• Manage own workload, estimating time to completion of tasks, identifying any factors that may cause delays or problems in implementation;

• Take an interest in maintaining knowledge of relevant issues;

• Undertake any other duties as required by AMMF, either on a temporary basis or following mutually agreed changes to the job description;

• Services, the individual treatment centres and long term outcome.
## Person Specification

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<thead>
<tr>
<th>Description</th>
<th>Essential</th>
<th>Desirable</th>
<th>Assessment</th>
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<tbody>
<tr>
<td><strong>Qualification</strong></td>
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<tr>
<td>Degree level qualification or equivalent in a relevant discipline (bioinformatics, statistics, epidemiology, or sciences with a significant quantitative analytical component)</td>
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<tr>
<td>Post-graduate degree and / or equivalent experience in a relevant discipline (bioinformatics, statistics, epidemiology, or sciences with a significant quantitative analytical component)</td>
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<td><strong>Knowledge and experience</strong></td>
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<tr>
<td>Experience of analysing and presenting complex health information in a variety of formats to a wide range of customers</td>
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<tr>
<td>Using statistical software packages, e.g. STATA, R, SAS</td>
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<td>Analysing Hospital Episodes Statistics data</td>
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<td>Working with public health information</td>
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<td>Database design and development and data quality issues</td>
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<td>Understanding of current NHS organisational structure, main data flows, NHS data standards and working with confidential information</td>
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<td>NHS reference data, coding systems and medical terminology</td>
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<tr>
<td>Experience of working with cancer registration data</td>
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<td>Geographical mapping software and associated datasets</td>
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<td>Cancer registration and current developments in cancer information and cancer services (knowledge)</td>
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<td><strong>Skills and capabilities</strong></td>
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<td>Interpreting customers’ information requirements</td>
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<tr>
<td>Demonstrable skills in a range of standard computer software packages (e.g., Word, Excel, PowerPoint, Access, ArcGIS)</td>
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<td>Experience in the use of statistical methodologies for interpreting and understanding data sets</td>
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<td>Awareness of national IT and information developments in the NHS</td>
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<td>Advanced analytical / data interpretation skills</td>
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<td>Analytical report writing and production</td>
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<td>Excellent oral and written presentation skills</td>
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<td>Able to prioritise workload and use initiative</td>
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<td>Project management skills</td>
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<td>Structured Query Language (SQL)</td>
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### The AMMF/NCRAS partnership

AMMF is the UK’s only dedicated cholangiocarcinoma Charity, and works closely with Cholangiocarcinoma-UK (CCA-UK), a multidisciplinary UK-wide group interested in all facets of CCA and a special interest group of the British Association for the Study of the Liver (BASL). This collaborative project between AMMF and NCRAS/PHE proposes to
increase our understanding of CCA in England by ensuring accurate and robust data to improve awareness, facilitate further research avenues and reduce health inequalities, for the benefit of cholangiocarcinoma patients in England.

The National Cancer Registration & Analysis Service (NCRAS)
NCRAS is a department of PHE, building on the work of partner organisations and teams to develop world-class cancer intelligence for PHE, partners – nationally and internationally – and the local public health system. The department consists of cancer registration and intelligence teams in a number of offices across England. This post is part of the cancer analytical team in one of the NCRAS offices (Birmingham, Bristol, Cambridge, London, Manchester, Nottingham, Oxford, Sheffield and York).

For further information on NCRAS, please visit http://www.ncras.nhs.uk.

Specific partnership objectives
This project aims to address several urgent questions relating the epidemiological trends of CCA by analysing retrospective data held by NCRAS:

- Is CCA truly increasing in England? If so, which age groups/ gender(s)?
- Which type(s) of CCA are rising/falling?
- Has adoption of new ICD-codes affected incidence rates?
- Is the basis of diagnosis for CCA appropriate?
- Has the route to diagnosis changed over recent years?
- If the rise in CCA is due to better diagnosis, is the stage of disease at time of diagnosis changing?
- Are there regional variations in treatments and mortality which might reflect variation in referral practices?
- Are there common co-morbidities emerging in CCA patients and are there regional variations in incidence or areas of case clustering, which may indicate potential underlying risk factors?
- Is there a need for a new coding and categorisation system that is more in line with clinical practice and one that will better facilitate uniform global coding practices and comparative analysis of cholangiocarcinoma trends over time and place?

The project will analyse incidence and mortality rates of CCA and other relevant cancers over the last two to three decades to examine the following specific clinically relevant breakdowns:

- Rates by gender
- Rates by ethnicity
- Age at diagnosis
- Survival after diagnosis
- Stage of disease at time of diagnosis
- Basis of diagnosis
- Route to diagnosis
- Co-morbidities
- Treatments given e.g. surgical resection, chemotherapy
- Regional variation by analysis by Cancer Alliance Regions
To apply

Please email your CV together with a covering letter (max 500 words) to Helen Morement, CEO, AMMF at: helen@ammf.org.uk

Please note: Candidates with scientific queries may email: Professor Shahid A Khan: shahid.khan@imperial.ac.uk, or Professor Mireille Toledano: m.toledano@imperial.ac.uk

Closing Date: 16 November 2018 at 5pm GMT
Interviews will be held w/c 3rd December 2018