Candidate Information

Position: Research Fellow
School/Department: Centre for Public Health
Reference: 22/110025
Closing Date: Monday 15 August 2022
Salary: £34,304 - £38,587 per annum
Anticipated Interview Date: Wednesday 7 September 2022
Duration: Available until 30 June 2024

JOB PURPOSE:

This exciting position will allow the successful candidate to work on the ACE (Study of technologies for the diagnosis of angle closure glaucoma) project funded by National Institute of Health Research (NIHR).

MAJOR DUTIES:

1. Working with the ACE study team, utilising statistical and health economics methods to evaluate the diagnostic accuracy and cost-effectiveness of diagnostic tests for angle closure glaucoma.
2. Support the ACE project team with project-specific administrative duties as requested (e.g. arranging research group meetings).
3. Support the research team with data gathering, management and analysis in other work packages in the project.
4. Carry out data analyses, and generate reports using appropriate methods.
5. Assist in the development and maintenance of the project website and keeping it up-to-date with research materials and project publications.
6. Work with other members of the research team in delivering the detailed project plan for the research, in accordance with the NIHR grant.
7. Assist in the coordination of project activities with the research team and stakeholders.
8. Assist with the development of regular progress reports to members of the research group, other groups within the Centre/University, external audiences nationally and internationally and external bodies to disseminate and publicize research findings.
9. Assist with the preparation, often in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
10. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines and engage in technical training as needed.
11. Participate and in some cases lead outreach activities on behalf of the group/Centre.

ESSENTIAL CRITERIA:

1. Have, or about to obtain, a PhD in health economics, statistics, public health, epidemiology, or a related area.
2. At least 3 years recent research experience.
3. Track record in the application of a range of quantitative techniques, relevant research experience relevant to this study.
4. Demonstrated ability to conduct key tasks for the development and completion of research projects, such as ethics approval, data collection, preparation of data analysis plan, and data analysis and reporting.
5. Demonstrated skills in using at least one statistical and or spatial analysis package (e.g., , R, Stata,) and capacity and willingness to learn others.
6. Research publications commensurate with career stage.
7. Familiarity with the governance, technical, and ethical issues related to accessing and using health datasets.
8. Excellent IT skills e.g. Microsoft Office suite.
9. Excellent leadership skills.
10. Excellent organisational skills.
11. Excellent inter-personal skills.

12. Ability to communicate complex information clearly.
13. Excellent oral and written communication skills.
14. Evidence of ability to write reports and meet deadlines.
15. Good team working skills in multiple team settings.
16. Excellent problem-solving skills and able to use own initiative.

DESIRABLE CRITERIA:
1. Experience in cost-effectiveness analysis.
2. Experience or training in causal inference statistical techniques.
3. Experience in decision-analytic modelling.
4. Experience working in public health, epidemiology, or health behaviours.
5. Experience of public engagement activities and disseminating research to non-academic audience.
6. Proven ability to participate in collaborative research.

ADDITIONAL INFORMATION:
Glaucoma is a chronic eye disease that damages the optic nerve, which carries visual information from the eye to the brain. It is the second leading cause of blindness in the UK, and responsible for 4,000 people being registered as blind or partially sighted each year. Many more have glaucoma that is not so severe, but which is bad enough to reduce their vision and quality of life.

'Open angle glaucoma' is the most common type of glaucoma. 'Angle closure glaucoma' causes 1 in 6 glaucomas but is more severe than open angle. In an early stage angle closure can be treated with laser to prevent glaucoma. The 'angle' is the front part of the eye that has drainage channels in it, where the aqueous humour -the clear fluid that fills that part of the eye– can drain out of. This helps prevent high pressure in the eye which is one of the key features of glaucoma.

Angle closure is responsible for up to 20% of referrals to glaucoma services. Glaucoma UK's helpline receives frequent calls for advice on angle closure and sends out over 8,000 angle closure patient information leaflets a year.

Patients with suspected glaucoma or angle closure are identified by community optometrists, who refer them to hospital eye services. Diagnosing glaucoma and angle closure is challenging and many people referred do not actually turn out to have a problem. This is a waste of NHS resources. Hospital eye services are very busy, dealing with nearly one in ten of all hospital outpatient attendances in the NHS.

Glaucoma accounts for about a quarter of all outpatient activity, with over 1 million glaucoma-related visits per year.

The current NHS NICE guidance requires that patients who are referred to hospital eye services with possible glaucoma should have a test called 'gonioscopy' to examine the angle to rule out angle closure. This test needs to be done by an expert clinician with a special contact lens that touches the front of the eye. If there was an accurate non-contact assessment of the angle, gonioscopy by an expert clinician might not be needed for all individuals. These tests will reduce unnecessary hospital referrals and demand for clinician examination.

In the ACE study we will evaluate two different tests: (1) anterior-segment OCT, which is a sophisticated imaging technology that can be easily interpreted. This test is user friendly, easy to learn, fast, and provides consistent and high-resolution measurements of the angle structures. This device is widely available in NHS Trusts. (2) limbal anterior chamber depth test, that estimates indirectly if the angle is open or closed; it is simple and quick, and is done routinely by optometrists. If one or both of the non-contact tests done by non-ophthalmologists are as accurate as gonioscopy, this would free up doctors time and NHS resources to treat more patients with eye diseases.

In our study, we will ask 600 people referred to 12 UK hospital eye services with suspected angle closure to have both tests. They will also be examined by an expert ophthalmologist, who will do gonioscopy unaware of the results of tests, so that we can find out how well the tests perform in an unbiased way. This will allow us to identify which is the most effective and efficient method of correctly diagnosing people with angle closure and which method represents best use of NHS resources. Our research team include clinicians, experienced researchers and two patients. Glaucoma UK and a PPI group will give advice.