Nuffield Department of Primary Care Health Sciences,

University of Oxford

Project 1. AlABAMA project: Penicillin allergy status and its effect on antibiotic prescribing, patient outcomes, and antimicrobial resistance

It is estimated that up to 10% of patients have a record of penicillin allergy in primary care. However, fewer than 10% of these patients are truly allergic. The focus of ALABAMA is 'false positive' records of penicillin allergy, how these affect prescribing and whether a complex intervention aimed at verifying these records is clinically/cost effective. We aim to determine whether offering patients testing for penicillin allergy is clinically effective in improving patient health outcomes. As part of the trial, we are also looking whether this intervention (being tested for penicillin allergy) changes both clinicians' and patients' behaviours by conducting interviews and survey exploring patients' and clinicians' views about penicillin allergy.

The student will have an opportunity to learn about collecting and analysing qualitative and survey data as part of a large trial and gain an understanding of how behaviour change approaches can be applied in clinical practice. There might also be an opportunity to be involved in writing a paper based on these findings.

Previous training: Interest in survey and qualitative interviews; interest in applying psychology in clinical practice

Supervisory team: Dr Marta Wanat, Dr Sarah Tonkin-Crine

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Project 2. Chronic obstructive airways disease- Secondary analysis of trial data

This project offers an intern the opportunity to work with Professor Chris Butler and the University of Oxford Primary Care Infections Research Team to conduct clinically important secondary analysis of a randomised controlled clinical trial that was recently published in the New England Journal of Medicine. The focus will be on predicting those patients in the trial who benefited from various treatments and considering whether there are any clues as to which patient features might predict an and early recurrent exacerbation of the chronic obstructive airways disease. Chronic obstructive airways disease is one of the world's leading causes of morbidity and mortality, is and is also an important reason why antibiotics are widely used., but some of these antibiotic prescriptions do not help patients. Unnecessary use of antibiotics impacts on antibiotic resistance, and this work might help

us further refine which patients are best suited to particular treatments. The project will involve learning how to manipulate clinical trial data in a statistical package, reviewing existing relevant evidence, and drafting a manuscript.

Project 3. OpenPrescribing

Research and informatics platform with 130,000 users a year, research projects include work examining speed of adoption for new innovations, variation in care, new methods of outlier detection, use of open analytic methods (GitHub, Jupyter) in healthcare, data science in policy, and more.

Working with Ben Goldacre and DataLab team.

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Project 4. Clinical Informatics

The Nuffield Department of Primary Care is the home of the Royal College of General Practitioners (RCGP) Research and Surveillance Centre (RSC), a network of over 500 practices with data stretching back over 50 years. There is scope for projects in infections, particularly influenza, vaccine uptake and effectiveness, diabetes and a range of more contemporary areas such as frailty, social prescribing, homelessness and the general practice workshop.

Working with Simon de Lusignan and the Clinical Informatics team.