SPCR internship projects 2026

Name & email supervisor(s):
Sarah Harrisson
Ram Bajpai

Name & email of reviewer(s) for applicants applying to undertake this internship project:
As above, plus Danielle van der Windt and Gwenllian Wynne Jones

Length and dates of internship:
4-6 weeks in summer, or at a later time – can be part-time over a longer period if preferred.

Host department:
School of Medicine, Keele University

How will the internship be conducted:

☐ In person at the university
☐ Virtual/ from home
☒ Both are possible, depending on preference of student

Title internship project:
Diagnostic classification of shoulder pain: comparison of findings from clinical examination versus imaging (diagnostic ultrasound)

Summary of the internship project: *(max 250 words, can include hyperlinks to further information)*

Shoulder pain is one of the most common musculoskeletal conditions, with the median population prevalence estimated at 16% globally. Annually approximately 3% of adults consult primary care for an episode of shoulder pain. Most people recovery quickly, but in 40-50% pain and disability persist for more than 6 months. Diagnosing the cause of the pain based on physical examination or imaging can be difficult and is contentious, leading to uncertainty in management, including treatment or referral decisions.

As part of a prospective cohort study investigating the prognosis and management of shoulder pain (PANDA-S), we invited people presenting with shoulder pain in primary care to attend a research clinic (link cohort protocol). Participants (n=152) received an examination of their shoulder by a physiotherapist and an ultrasound scan by an experienced sonographer. The assessments were conducted independently, blind to each other's findings and conclusions.
The intern will describe the results from these two types of shoulder examination focusing on the most common causes of shoulder pain (e.g. frozen shoulder, tendinopathy, osteoarthritis, acromioclavicular conditions), evaluate the level of agreement, and explore possible reasons for disagreement.

The findings will be reported in a research paper and/or conference presentation, and will help to identify areas of uncertainty in the diagnostic classification of shoulder pain. The work will also

help to identify subgroups of patients with shoulder pain in primary care where diagnostic imaging may provide different or complementary information to physical examination.

Learning objectives:

- To gain an understanding of study designs used in health research, in particular cross-sectional and cohort designs
- To gain experience with basic statistical analysis, including descriptive data analysis and statistical measures of agreement
- To gain experience with academic writing and drafting a short research report

Any further information:

The student will ideally be able to spend some time at Keele University, to ensure secure access to the data, and be supported during data analysis.