Name & email supervisor(s): Dr Kieran Bromley

Length and dates of internship: August/September 2024 [4 weeks between 01/08/2024 – 30/09/2024]

Host department: School of Medicine, Keele University Choose an item.

## How will the internship be conducted:

 $\Box$  In person at the university

 $\Box$  Virtual/ from home

Both are possible, depending on preference of student

## Title internship project:

Systematic review of feasibility progression criteria in pilot and feasibility studies.

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

There are many aspects of conducting a clinical trial that require careful consideration before funding is given for a large study. Therefore, researchers usually carry out smaller-scale (pilot and feasibility studies (PAFS)) to understand if a full-scale trial is worth doing and could be successfully conducted. It is important to consider pre-defined progression criteria for PAFS outcomes to inform on whether to progress or not to a main trial.

The aim of this study is to carry out a systematic review of the literature scoping different progression criteria for PAFS. Focus will be on PAFS studies published in high-ranking and relevant journals (e.g. Pilot and Feasibility studies journal, BMJ Open) in the last 3 years. Importantly, the reviewer will ascertain the cut-off values used for the progression outcomes within these studies for decision-making purposes. The review will seek to identify values that have been used for decision-making in relation to progression, identify reasons for non-progression and extract any suggestions for possible amendments to support continuing to a main trial.

The intern will also be tasked to perform a specific sub-study of all papers that have cited the Lewis et al. (Pilot Feasibility Stud. 2021; 7:40) publication to ascertain what progression cutoff values and sample sizes have been used following the methods that were detailed in that paper (119 citations, to date); the methodology importantly provided a way of deriving a sample size calculation for PAFS that is directly related to the set feasibility progression criteria.

## Learning objectives:

Learning to carry out a systematic review in medical research Learning how to extract key data for evaluation Evaluating and summarising the extracted data Writing up the methods and findings for reports and publications

Any further information: