

## **TCS/25/18 - Improving the diagnosis and treatment of suspected myocardial infarction in patients with advanced chronic kidney disease**

People with advanced kidney disease are at very high risk of heart disease. If they present to hospital with symptoms of a possible heart attack (e.g., chest pain), they are less likely to undergo investigations or receive treatment compared to people with normal kidney function. This is due to uncertainty around how to diagnose heart attacks in advanced kidney disease and concerns that standard treatments may offer less benefit and greater risk. These uncertainties persist because patients with advanced kidney disease have been excluded from the majority of clinical trials.

Coronary angiography is an imaging test that allows direct visualisation of the heart's blood vessels. It is the best investigation for suspected heart attacks and guides urgent treatment. However, patients with advanced kidney disease are significantly less likely to undergo this test.

This study will assess whether coronary angiography is acceptable, deliverable and safe in patients with advanced kidney disease presenting with a suspected heart attack. We will recruit 60 patients from three Scottish hospitals and randomly assign them to receive either standard care (current practice) or coronary angiography. We will assess the safety of angiography and whether it alters diagnosis and treatment. In addition, we will explore patient and clinician views and identify barriers to recruitment.

Findings will inform the design of a larger trial to determine the safety of coronary angiography in this underserved population. This project addresses a key evidence gap and aims to support more equitable, evidence-based care for people with kidney disease in Scotland.