

TCS/26/22 - Microwave hyperthermia treatment for anal precancers: safety, acceptability and feasibility of a future randomised controlled trial

What is this research about? Doctors call the last part of the bowel the anus.

Infection with human papillomavirus (HPV) sometimes causes abnormalities around the anus called precancers. These precancers need treatment to prevent them turning into cancer over time.

Why do this research? Rates of anal cancer are rising and deaths from anal cancer are higher in Scotland than elsewhere in the UK. Current treatments for anal precancer are painful and often do not provide long-term cure. Surgery to cut precancers out, or laser treatment to burn the precancers, does not treat the HPV infection. Therefore, the precancers can regrow or develop elsewhere. To improve treatment, we will trial a microwave device already used to successfully treat warts caused by HPV. The device delivers mild heat to the precancer and stimulates the immune system to clear HPV.

How will the research be done? We will invite patients awaiting surgery for anal precancer to participate in a microwave device study. We will check it works by measuring changes in the precancer such as size. We will interview those that participate and those that decline to participate to understand their reasons and experiences. We will interview and survey healthcare staff treating anal precancers to understand if microwave treatment is acceptable.

How will the study results be used? The results will help us decide whether a large trial comparing microwave treatment to current treatment is possible and necessary. This could lead to a change in treatment and guidelines in future if successful.