

“Collecting regular samples and behavioural data from men who have sex with men to investigate sexually transmitted gut bugs – is this acceptable and feasible?”

Findings from: [STEIM: Acceptability and feasibility of longitudinal sample collection to better understand the epidemiology of enteric infections in MSM](#)

What was the study about?

Gut bugs are microbes such as bacteria and viruses that live in the gut. These bugs are mainly passed on through exposure to contaminated food, water, or surfaces, causing traces of faeces (poo) to be ingested. They can be spread sexually, and men who have sex with men are particularly at risk. Gut bugs can cause diarrhoea, stomach cramps and fever, and in rare cases can cause serious illness. However, not everyone will have symptoms if they are infected (we call this asymptomatic infection).

Over the last 20 years, there has been an increase in the number of reported outbreaks of sexually transmitted gut bugs among men who have sex with men, and some of the gut bugs present during these outbreaks do not respond as well to antimicrobial treatment (called antimicrobial resistance).

We want to understand how long gut bugs can be carried in the gut, who may be at a higher risk of infection, how antimicrobial resistance develops and how we can best treat infections. We think that collecting samples and data over time can help to answer our questions. Therefore, we first conducted a pilot study to assess feasibility and acceptability – whether this type of study is practical and acceptable to people, which should help us to make sure we are conducting the study in the best way.

Why is this important?

It is important to understand why we continue to see these infections in men who have sex with men, to understand how asymptomatic infection might affect the extent to which they are spreading, and to find out why we see antimicrobial resistance. Previous evidence suggests that antimicrobial resistance could be related to the use of antimicrobials to prevent and treat bacterial sexually transmitted infections, but we don't fully understand this. Our study could help us to develop strategies that aim to reduce the spread of gut bugs and related harms.

What did we do?

We recruited men who have sex with men attending sexual health services in Brighton and West Sussex to take part in a pilot study. Initially, people taking part in the study provided a first rectal swab and optional stool (poo) sample, along with completing a questionnaire. Follow-up questionnaires and rectal swabs were collected at weekly intervals for 11 weeks. We linked data collected routinely from sexual health services to the study data, to look at further clinical and demographic information. Some of the participants were invited to take part in an optional interview to discuss their experience of the study.

Key findings

- Overall, 193 men who have sex with men took part in the study. About half (100/193) provided a first rectal swab, and 34 provided all 12 rectal swabs. Along with the first rectal swab, 76 participants provided the optional stool sample. Just over a third of participants (71/193) completed the first questionnaire, with a fifth of those (15/71) providing all the follow-up questionnaires.
- We interviewed 21 participants. Things that encouraged people to take part in the study included the feeling of giving something back, and themselves and their peers indirectly benefiting from the study results. The study was generally acceptable, with over half mentioning that it was relatively easy to take part in the study and that they could fit the study tasks into their normal routines. Most participants were happy with the study lasting for 12 weeks, and having an end point to the study encouraged participation.
- Things that stopped people from completing the study included not being aware of what was required, particularly for the follow-up questionnaires. To improve the study, participants suggested making the instructions easier to read and to include a section at the beginning of the instructions clearly listing the study tasks. Text message reminders were sent to participants during the study but there were mixed feelings about how useful these were, and they were interpreted by participants in different ways (for example whether they were generic thank you messages or personalised reminders).

What do these findings mean?

It is practical and acceptable to collect regular rectal swabs and stool samples from men who have sex with men over time. Barriers leading to people not completing the study procedures can be addressed in future study designs. The findings from this study can also inform the design of similar studies in other settings. This type of study design provides a novel way to explore sexually transmitted gut bugs in men who have sex with men and can be used to address important gaps in our knowledge to inform infection control.

Related publications not already linked to project:

<https://doi.org/10.1136/sextrans-BASHH-2023.190>

<https://doi.org/10.1136/sextrans-BASHH-2023.166>