







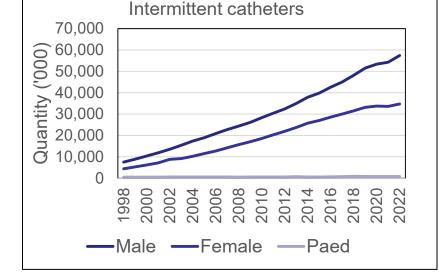
# #643: Is there a market for reusable intermittent catheters?

Avery, M<sup>1</sup>, Dickson, S<sup>2</sup>, Clancy, B<sup>1</sup>, Dorling, C<sup>1</sup>, Macaulay, M<sup>1</sup>, Murphy, C<sup>1</sup>, Watson, G<sup>3</sup>, Fader, M<sup>1</sup>

1. University of Southampton, UK, 2. Glasgow Caledonian University, UK, 3. University of Newcastle, UK

### Introduction

Globally, there are very few intermittent catheters (IC) designed to be reused. In England alone >90 million catheters were discarded in 2022 (1).



If more reusable catheters were made available to IC users, would they want to use them? Understanding the willingness of IC users to try out reusable catheters will help to determine if there is a market that is sufficiently attractive to innovators and industry to develop such catheters.

#### The MultiCath Trial

A non-inferiority randomised controlled trial to compare mixed (multi/single-use) catheter management with single-use catheter management https://www.southampton.ac.uk/multicath/





- We conducted the MultlCath Trial recruiting 578 IC users followed up over 12 months.
- The MultlCath Trial intervention is mixed IC use (a purpose-made reusable catheter plus current single-use catheters).
- Intervention participants were taught to clean the reusable catheter using soapy water and sodium hypochlorite after each use (for up to 28 days).

### Aim

The aim of this sub-study was to gain insight into the potential market for reusable catheters using MultlCath Trial, survey and interview data.

# Study design and methods

The following sets of data were included:

#### 1. Trial recruitment data.

Number of IC users invited to MultICath Trial, number of expressions of interest and final number of eligible participants.

#### 2. Survey data.

Online survey sent to 188 IC users who had taken part in the Trial. Responses to question about reasons for participation analysed.

## 3. Expression of interest forms from the Trial.

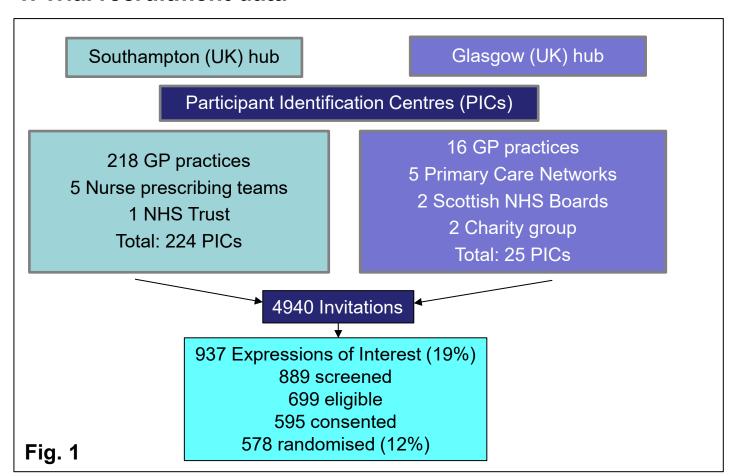
IC users invited to the MultlCath Trial could return an expression of interest form, to confirm or decline participation. Those who declined could record their reasons for declining.

#### 4. Interview data.

Interviews with 32 participants randomised to the intervention arm who had completed or withdrawn from the MultlCath Trial. Asked about their reasons for participating.

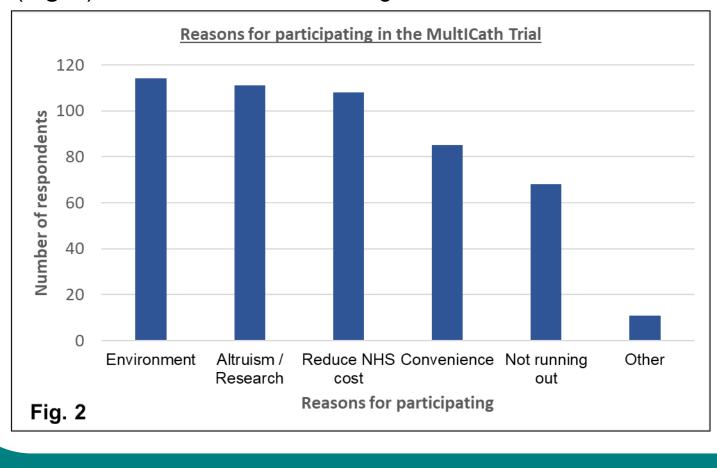
# Results

### 1. Trial recruitment data



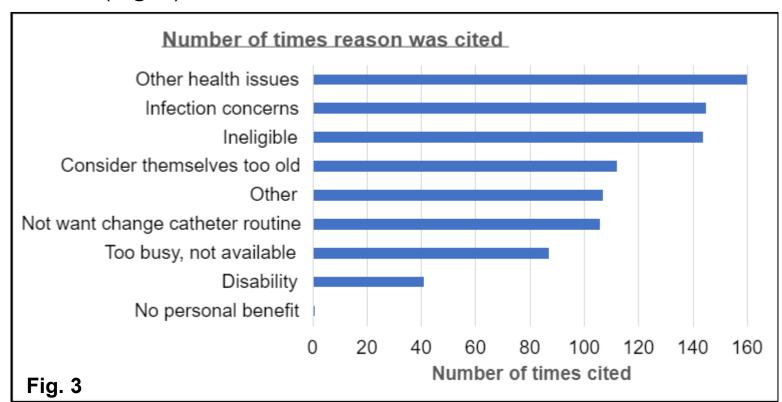
# 2. Survey data

Survey responders (N=169/188) gave a total of 497 responses (**Fig. 2**) for reasons for volunteering for the Trial.



## 3. Expression of Interest forms

Reasons for not wanting to join the trial were provided by 676 invitees (**Fig. 3**).



# 4. Interview data

Almost all the interviewees wanted to continue to use a reusable catheter for environmental reasons, but mainly in conjunction with single use catheters. The 'characteristics of the Trial catheter' was important, and a wider range of reusable catheter designs would be needed:

"Primarily one of the things that I had real concerns about I suppose is the environmental impact of me putting the number of catheters that I use on a daily basis straight into landfill."

"I would do 90% reusable but with the backup for going on holiday or weekends away with the single use."

"I do think the reusable ones are a massive way forward if they can make it more day to day practical".

# Interpretation of results and conclusion

- Nearly 20% of IC users invited expressed an interest in the MultICath Trial and mainly for environmental reasons this reflects attitudes found more generally in a UK government report: 18% of people were 'positive greens' (actively participate in attempting to improve the environment) and a further 12% were 'waste watchers' (most concerned about reducing waste) (2).
- Survey and interview data indicate that other key motivators for participating in the Trial were altruism, helping with research and reducing cost.
- A large proportion of invited IC users declined to take part in the Trial for a range of reasons; concern about urinary tract infection was the second
  highest reason cited. It is likely that use of single-use catheters alone will remain the preference for many users and evidence of safety is needed.
- The interview findings indicate that a range of reusable catheters with different design attributes is desirable.

Conclusion: There appears to be a market for reusable catheters driven by environmental concerns. Innovative catheter designs that meet user needs are needed.



2. DEFRA report (2008) A framework for pro-environmental behaviours. Department for the Environment, Food and Rural Affairs, London. Available at: http://www.defra.gov.uk/publications/files/pb13574-behaviours-report080110.pdf

NIHR or the Department of Health and Social Care.