SWAT 149: Characteristics of participants who choose to complete electronic or paper patient reported outcome measures (PROs)

Objective of this SWAT
Primary
To identify and compare the characteristics of participants who choose to complete an electronic or paper patient reported outcome (PRO) measure.

Secondary
To compare data quality and completion rate between electronic and paper PROs by participants' characteristics.
To compare the return rate between electronic and paper PROs by participants' characteristics.

Study area: Follow-up
Sample type: Participants
Estimated funding level needed: Low

Background
Many research studies require the participants to remain involved for a period of time after recruitment. Therefore, ensuring participants do not leave the study early is crucial for study validity and improving retention is a priority for the trial methodological agenda in the UK (1,2).

Patient reported outcomes (PROs) are regularly collected for research studies and are often a significant part of long-term follow up. They might be collected by electronic (e.g. via tablets or mobile devices) or paper methods that involve posting and returning questionnaires. Electronic means of collecting PROs (ePROs) have been found to have advantages over paper based methods (3), but some reticence remains about their use because of technological barriers and the perceived "digital divide", and paper methods continue to be used. This SWAT will identify and compare the characteristics of participants who choose to complete an electronic or a paper PROs in an effort to support future decision making for trials.

Interventions and comparators
Intervention 1: Electronic PROs distributed via email or SMS and accessed on a web-based platform
Intervention 2: Paper PROs distributed via post

Index Type: Questionnaire follow up

Method for allocating to intervention or comparator
Participant choice

Outcome measures
Primary: Participant characteristics: Age, sex, ethnicity, post code, deprivation, educational status, main disease condition, reading/writing difficulties and reasons for their preference.
Secondary: Number of unanswered questions; number of data queries (resolved and unresolved); and return rates.

Analysis plans
Linear regression will be used to compare age, deprivation score, unanswered questions, and number of queries between electronic and paper PROs by participants' characteristics, using an interaction term of intervention*participant characteristic.

Logistic regression will be used to compare sex, ethnicity, educational status, main disease condition, and returned PROs between electronic and paper PROs by participants' characteristics, using an interaction term of intervention*participant characteristic.

Possible problems in implementing this SWAT
We do not know how many participants will choose one method over the other in advance, therefore planning costs might be challenging

References
1. Tudur Smith C, et al. The trials methodological research agenda: results from a priority setting exercise. Trials 2014;15:32.
2. Brunsdon D, et al. What are the most important unanswered research questions in trial retention? A James Lind Alliance Priority Setting Partnership: the PRioRiTy II (Prioritising Retention in Randomised Trials) study. Trials 2019;20(1): 593.
3. Meirte J, et al. Benefits and Disadvantages of Electronic Patient-reported Outcome Measures: Systematic Review. JMIR Perioperative Medicine 2020;3(1):e15588

Publications or presentations of this SWAT design

Examples of the implementation of this SWAT

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Date of idea: 12/MAY/2020
Revisions made by:
Date of revisions: