

SWAT 224: Alternating text message and phone call reminders versus text message reminders alone for increasing response to follow-up questionnaires.

Objective of this SWAT

To evaluate the effects of alternating text message and phone call reminders versus text message reminders alone for promoting response to follow-up questionnaires.

Study area: Retention, Follow-up

Sample type: Carer/Parent, Participants

Estimated funding level needed: Very Low

Background

There is a need to develop and rigorously evaluate strategies for improving the return of follow-up questionnaires in clinical trials, by embedding them in actual trials [1, 2, 3]. Text messaging is a simple, cost-effective form of communication, which has been shown to be effective in various areas; including improving trial recruitment [4], return of postal questionnaires in trials [5], and increasing payment of delinquent fines [6].

In the GASTRIC-PICU study (ISRCTN79668198), data collected via questionnaires are essential for the primary cost-effectiveness outcome as well as for some secondary outcome measures:

- Resource use and costs
- Health-related Quality of Life
- Quality-Adjusted Life Years (QALYs)
- Feeding component of the Functional Status Score

This SWAT will compare two approaches for sending reminders to non-responders.

Interventions and comparators

Intervention 1: Participants will receive alternating phone call and text message reminders. The reminders will start 7 days after sending the questionnaire (if by post) or 3 days (if by email).

Intervention 2: Participants will receive text message reminders alone. The reminders will start 7 days after sending the questionnaire (if by post) or 3 days (if by email).

Index Type: Method of Follow-up

Method for allocating to intervention or comparator

Randomisation

Outcome measures

Primary: Difference in the proportion of questionnaires returned by participants in each SWAT group.

Secondary:

Analysis plans

A Bayesian generalized linear model (GLM) will be specified to model the return and non-return of completed questionnaires, and calculate the posterior probability that phone call and text message reminders increase the return rate by at least $x\%$, compared with text message reminders alone. Posterior probabilities will be calculated for a range of values for " x ".

The SWAT sample size will not be fixed in advance. Multiple analyses will be conducted and the SWAT will be closed when the posterior probabilities allow a conclusion about the relative effectiveness of the two types of messaging to be reached.

Before any data from the SWAT are seen, a simulation exercise will determine the details of the Bayesian model including the prior specification, number and timing of the analyses, the values of x and the minimum probabilities required to draw a conclusion. This will also inform the likely sample size of the SWAT.

Analyses will be conducted on an intention-to-treat basis using the Bayesian model. Baseline data will be summarised overall and by the two SWAT groups (number and percentage or mean and SD). The primary outcome will be presented as number and percentages within the groups. Differences in the response proportion between groups will be reported using odds ratios, summarised by posterior medians and 95% credible intervals. Prior sensitivity will be explored.

Possible problems in implementing this SWAT

Missing data (participant telephone numbers).

References

1. Bower P, Brueton V, Gamble C, et al. Interventions to improve recruitment and retention in clinical trials: a survey and workshop to assess current practice and future priorities. *Trials* 2014;15:399.
2. Adamson J, Hewitt CE, Torgerson DJ. Producing better evidence on how to improve randomised controlled trials. *BMJ* 2015;351:h4923.
3. Gillies K, Kearney A, Keenan C, et al. Strategies to improve retention in randomised trials. *Cochrane Database of Systematic Reviews* 2021;(3):MR000032.
4. Free C, Hoile E, Robertson S, Knight R. Three controlled trials of interventions to increase recruitment to a randomized controlled trial of mobile phone based smoking cessation support. *Clinical Trials* 2010;7(3):265-73.
5. Clark L, Ronaldson S, Dyson L, et al. Electronic prompts significantly increase response rates to postal questionnaires: a randomized trial within a randomized trial and meta-analysis. *Journal of Clinical Epidemiology* 2015;68(12):1446-50.
6. Haynes LC, Green DP, Gallagher R, et al. Collection of delinquent fines: An adaptive randomized trial to assess the effectiveness of alternative text messages. *Journal of Policy Analysis and Management* 2013;32(4):718-30.

Publications or presentations of this SWAT design

Examples of the implementation of this SWAT

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Revisions made by:

Date of revisions: