Supplementary Material 3a. CONSORT 2010 checklist of information for the Activate cluster-randomised controlled trial

| Section/Topic | Item | Standard Checklist item | Extension for cluster designs |
|---------------------------|------------|--|--|
| Title and abotions | No | | |
| Title and abstract | 1a | Identification as a randomised trial in the title: YES | Identification as a cluster randomised trial in the title: YES |
| | 1b | Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts):1,2 MOSTLY | See Appendix 3b below |
| Introduction | | | |
| Background and objectives | 2a 2b | Scientific background and explanation of rationale: YES Specific objectives or | Rationale for using a cluster design: YES Whether objectives pertain to the |
| | 20 | hypotheses: YES | cluster level, the individual participant level or both: YES |
| Methods | | | |
| Trial design | 3a | Description of trial design (such as parallel, factorial) including allocation ratio: YES | Definition of cluster and description of how the design features apply to the clusters: YES |
| | 3b | Important changes to methods after trial commencement (such as eligibility criteria), with reasons: Not applicable | |
| Participants | 4a | Eligibility criteria for participants: YES Settings and locations where | Eligibility criteria for clusters: YES |
| | 4b | the data were collected: YES | |
| Interventions | 5 | The interventions for each group with sufficient details to allow replication, including how and when they were actually administered: YES | Whether interventions pertain to the cluster level, the individual participant level or both: YES (also in published protocol) |
| Outcomes | 6a | Completely defined pre- specified primary and secondary outcome measures, including how and when they were assessed: YES | Whether outcome measures pertain to the cluster level, the individual participant level or both: YES |
| | 6b | Any changes to trial outcomes after the trial commenced, with reasons: not applicable | |
| Sample size | 7 a | How sample size was determined: YES | Method of calculation, number of clusters(s) (and whether equal or unequal cluster sizes are assumed), cluster size, a coefficient of intracluster correlation (ICC or <i>k</i>), and an indication of its uncertainty: YES |
| | 7b | When applicable, explanation of any interim analyses and stopping guidelines: not applicable | |
| Randomisation: | | | |
| Sequence generation | 8a | Method used to generate the random allocation sequence: YES | |
| | 8b | Type of randomisation; details | Details of stratification or matching if |

| | | of any restriction (such as blocking and block size): YES | used: YES |
|--|------------|---|---|
| Allocation concealment mechanism | 9 | Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned: YES | Specification that allocation was based on clusters rather than individuals and whether allocation concealment (if any) was at the cluster level, the individual participant level or both: YES |
| Implementation | 10 | Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions | Replace by 10a, 10b and 10c |
| | 10a | | Who generated the random allocation sequence, who enrolled clusters, and who assigned clusters to interventions: YES |
| | 10b | | Mechanism by which individual participants were included in clusters for the purposes of the trial (such as complete enumeration, random sampling): YES |
| | 10c | | From whom consent was sought (representatives of the cluster, or individual cluster members, or both), and whether consent was sought before or after randomisation: YES |
| Blinding | 11a | If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how: YES | |
| | 11b | If relevant, description of the similarity of interventions: not applicable | |
| Statistical methods | 12a | Statistical methods used to compare groups for primary and secondary outcomes: YES | How clustering was taken into account: YES |
| | 12b | Methods for additional analyses, such as subgroup analyses and adjusted analyses: YES | |
| Results | | , | |
| Participant flow (a diagram is strongly recommended) | 13a | For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome: YES | For each group, the numbers of clusters that were randomly assigned, received intended treatment, and were analysed for the primary outcome: YES (CONSORT diagram) |
| | 13b | For each group, losses and exclusions after randomisation, together with reasons: YES | For each group, losses and exclusions for both clusters and individual cluster members: YES (CONSORT diagram) |
| Recruitment | 14a 14b | Dates defining the periods of recruitment and follow-up: YES Why the trial ended or was | |
| | | stopped: not applicable | |
| Baseline data | 15 | A table showing baseline | Baseline characteristics for the |

| | | demographic and clinical characteristics for each group: YES | individual and cluster levels as applicable for each group: YES (for individuals for each group) |
|-------------------------|-----|--|---|
| Numbers analysed | 16 | For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups: YES (CONSORT diagram) | For each group, number of clusters included in each analysis: NO (but not necessary, as individual analyses, taking account of clustering in analyses) |
| Outcomes and estimation | 17a | For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval): YES | Results at the individual or cluster level as applicable and a coefficient of intracluster correlation (ICC or k) for each primary outcome: YES (results at individual level) |
| | 17b | For binary outcomes, presentation of both absolute and relative effect sizes is recommended: not applicable | |
| Ancillary analyses | 18 | Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing prespecified from exploratory: YES | |
| Harms | 19 | All important harms or unintended effects in each group (for specific guidance see CONSORT for harms ³): Not applicable | |
| Discussion | | •• | |
| Limitations | 20 | Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses: YES | |
| Generalisability | 21 | Generalisability (external validity, applicability) of the trial findings: YES | Generalisability to clusters and/or individual participants (as relevant): YES (to individual participants) |
| Interpretation | 22 | Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence: YES | |
| Other information | | | |
| Registration | 23 | Registration number and name of trial registry: YES | |
| Protocol | 24 | Where the full trial protocol can be accessed, if available: YES | |
| Funding | 25 | Sources of funding and other support (such as supply of drugs), role of funders: YES | |

Supplementary Material 3b. Extension of CONSORT for abstracts^{1,2,3} to reports of cluster-randomised trials

| Item | Standard Checklist item | Extension for cluster trials |
|--------------|----------------------------|------------------------------------|
| Title | | |
| Trial design | Identification of study as | Identification of study as cluster |

| | randomised: YES | randomised: YES |
|--------------------|---|--|
| | Description of the trial design (e.g. parallel, cluster, non-inferiority): YES | randomised. TES |
| Methods | | |
| Participants | Eligibility criteria for participants and the settings where the data were collected: Partly | Eligibility criteria for clusters: NO |
| Interventions | Interventions intended for each group: YES | |
| Objective | Specific objective or hypothesis: YES | Whether objective or hypothesis pertains to the cluster level, the individual participant level or both: YES (individual) |
| Outcome | Clearly defined primary outcome for this report: YES | Whether the primary outcome pertains to the cluster level, the individual participant level or both: YES (individual) |
| Randomization | How participants were allocated to interventions: YES | How clusters were allocated to interventions: YES |
| Blinding (masking) | Whether or not participants, care givers, and those assessing the outcomes were blinded to group assignment: NO | |
| Results | | |
| Numbers randomized | Number of participants randomized to each group: YES | Number of clusters randomized to each group: YES |
| Recruitment | Trial status | Not applicable |
| Numbers analysed | Number of participants analysed in each group: YES | Number of clusters analysed in each group: NO, not applicable, as analysis at individual level controlling for clustering. |
| Outcome | For the primary outcome, a result for each group and the estimated effect size and its precision: Yes | Results at the cluster or individual participant level as applicable for each primary outcome: At individual level |
| Harms | Important adverse events or side effects: Not applicable | |
| Conclusions | - | |
| | General interpretation of the results: YES | |
| Trial registration | Registration number and name of trial register: YES | |
| Funding | Source of funding: YES | |
| | | |

References

- 1. Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, et al. CONSORT for reporting randomised trials in journal and conference abstracts. *Lancet* 2008, 371:281-283
- 2. Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG at al (2008) CONSORT for reporting randomized controlled trials in journal and conference abstracts: explanation and elaboration. *PLoS Med* 5(1): e20
- 3. Ioannidis JP, Evans SJ, Gotzsche PC, O'Neill RT, Altman DG, Schulz K, Moher D. Better reporting of harms in randomized trials: an extension of the CONSORT statement. *Ann Intern Med* 2004; 141(10):781-788.