



Current Developments in Cluster Randomised Trials and Stepped Wedge Designs

15-17 November 2021

Online Conference
(Zoom)

Programme



Current Developments in Cluster Randomised Trials and Stepped Wedge Designs

Time (GMT)	Day 1 – 15 November 2021
13:00-13.10	Welcome to the 7 th Annual Conference Reverend Professor Sandra Eldridge, Director PCTU, Queen Mary University of London
	Invited speaker Chair: Clémence Leyrat
13.10-14.00	Laura Balzer University of Massachusetts Amherst (USA) Machine Learning to Improve the Analysis of Cluster Randomised Trials
14.00-14.20	Break
14.20-15.40	Regular presentations 1 Chair: John Preisser
14:20-14.40	Cluster-randomised trials of individual-level interventions are at high risk of bias Christina Easter Institute of Applied Health Research, University of Birmingham (UK)
14.40-15.00	Deviations from planned designs are common in stepped wedge trials: results from a methodological review Agnès Caille Université de Tours (France)
15.00-15.20	CHEETAH Cluster Randomised Controlled Trial: Reducing surgical site infections in low- and middle-income countries Omar Omar University of Birmingham (UK)
15:20-15.40	Management of non-completers in statistical analysis of Cluster Randomized Trials in Nursing Homes Pierre Poupin CHRU Hôpitaux de Tours, Tours (France)
15:40-16:00	Break
16:00-16:30	Rapid talks 1 (4 minutes per talk followed by Q&A) Chair: Monica Taljaard
Turbo Talks	● Impact of complex, partially nested clustering in individually randomized group treatment trials Guangyu Tong Yale School of Public Health (USA)
	● A generalized estimating equations approach for the statistical power and analysis of longitudinal cluster randomized trials John Preisser Department of Biostatistics, University of North Carolina (USA)
	● A SAS macro for the analysis of clustered data based on GEE/MAEE paired estimating equations with application to cluster randomized trials Ying Zhang Department of Biostatistics, University of North Carolina (USA)
	● A SAS Macro for fast calculation of GEE power for longitudinal cluster randomized trials Paul Rathouz University of Texas at Austin (USA)
	Questions (all)
16:30-17:00	Rapid talks 2 (4 minutes per talk followed by Q&A) Chair: Karla Hemming
Turbo Talks	● power swgee: A Stata command for GEE-based power calculations in stepped wedge cluster randomized trials John Gallis Duke University (USA)
	● Power considerations for generalized estimating equations analyses of four-level cluster randomized trials Xueqi Wang Duke University (USA)
	● A systematic review of the characteristics and objectives of school-based feasibility cluster randomised trials evaluating health outcomes on pupils in the United Kingdom Kitty Parker NIHR Applied Research Collaboration South West Peninsula, University of Exeter (UK)
	Questions (All)



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Time (GMT)

Day 2 – 16 November 2021

13:00-13.10 Welcome and CRT website update
Sandra Eldridge and Claire Chan

Invited speaker
Chair: Claire Chan

13.10-14.00 **Fan Li** Department of Biostatistics, Yale School of Public Health (USA)
Designing cluster randomized trials to detect treatment effect heterogeneity

14.00-14.20 Break

14.20-15.20 **Regular presentations 2**
Chair: Agnès Caille

14:20-14.40 **Analysis of time-to-event outcomes using restricted mean survival time in cluster randomised trials**
Floriane Le Vilain-Abraham Université de Tours (France)

14.40-15.00 **Constrained randomisation and statistical inference for multi-arm parallel cluster randomised trials**
Yunji Zhou Duke University (USA)

15.00-15.20 **Two Weights Make a Wrong: Cluster Randomized Trials with Variable Cluster Sizes and Heterogeneous Treatment Effects**
Xueqi Wang Duke University (USA)

15:20-15:40 Break

Invited speaker
Chair: Sandra Eldridge

15:40-16.30 **Sally Kerry** PCTU Queen Mary University of London (UK)
Lighthouses and shipwrecks: a journey through cluster randomised trials

16.30-16.40 Break

16:40-17:00 **Rapid talks 3 (4 minutes per talk followed by Q&A)**
Chair: Bruno Giraudeau

Turbo Talks

- **Characteristics and practices of school-based cluster randomised controlled trials for improving health outcomes in pupils in the United Kingdom: a methodological systematic review**
Kitty Parker NIHR Applied Research Collaboration South West Peninsula, University of Exeter (UK)
- **Risk of bias in cluster randomized-controlled trials: a methodological review of child health trials published in 2007 and 2017**
Alex Aregbesola University of Manitoba, Winnipeg (Canada)
- **Overstating of impact in cluster randomized trials with binary outcomes: Key findings from a systematic review**
Elizabeth Turner Duke University (USA)

Questions (All)



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Time (GMT)	Day 3 – 17 November 2021
	Invited speaker Chair: Obioha Ukoumunne
09.00-09.50	Professor Richard Hayes London School of Hygiene & Tropical Medicine (UK) The HPTN 071 (PopART) trial of universal testing and treatment for HIV: design, findings and multi-disciplinary contributions
09.50-10.10	Break
10.10-11.50	Regular presentations 3 Chair: Richard Hooper
10.10-10.30	When should matching be used in the design of cluster randomized trials? Patty Chondros Department of General Practice, The University of Melbourne (Australia)
10.30-10.50	Intra-cluster correlations from the CLustered OUtcome Dataset bank to inform the design of longitudinal cluster trials Elizabeth Korevaar Monash University (Australia)
10.50-11.10	Use of information criteria for selecting a correlation structure for longitudinal cluster randomised trials Rhys Bowden Monash University (Australia)
11.10-11.30	Stepped wedge trials with a small number of clusters: Bayesian versus frequentist methods Kelsey Grantham Monash University (Australia)
11.30-11.50	Optimal design of cluster randomized trials with baseline data comparing routine care to a new intervention Andrew Copas MRC Clinical Trials Unit at University College London (UK)
11.50-12.10	Break
12.10-12.40	Rapid talks 4 (4 minutes per talk followed by Q&A) Chair: Neil Walker
Turbo Talks	● Missing continuous outcomes in stepped wedge cluster randomised trials Sorif Hossain Institute of Statistical Research and Training, University of Dhaka (Bangladesh)
	● A hybrid approach to comparing parallel-group and stepped-wedge cluster randomized trials when there is uncertainty in the intra-cluster correlation Samuel Sarkodie Population Health Sciences Institute, Newcastle University (UK)
	● A Bayesian Power Prior approach for incorporating pilot data into Cluster Randomised Controlled Trial analysis and design Ben Jones University of Exeter (UK)
	● Minimisation in parallel cluster randomised trials James Martin University of Birmingham (UK)
12.40-13.00	Questions (All) Concluding remarks Sandra Eldridge Conference Close

All times shown are in Greenwich Mean Time (GMT) zone. For obtaining the timing in your region please go to <https://greenwichmeantime.com/time-gadgets/time-zone-converter/>