Wednesday 24 July 2024

14:00-15:30 Invited Session 7 (Main Room)

Regulators' view of randomized and non-randomized evidence in drug development (Chairs: Adbel Babiker, Giota Touloumi)

The use of Real World Evidence within the context of Open-Label Extensions

Adrian Mander (GSK, UK):

Open label extension (OLE) studies are conducted following a randomised controlled trial to obtain long term safety and efficacy data. A commonly used OLE design is one that offers the experimental treatment to all trial participants after the randomised period of the trial. The lack of randomisation means that it is impossible to obtain a long-term causal estimate of the treatment effect. The OLE design can be improved by adding an external control arm that acts as a comparator. Propensity score weighting or matching are used to help with estimating the causal treatment effect, however, this ignores the overlapping period when the randomised control arm is observed at the same time as the external control arm. The methods presented in this talk will introduce a longitudinal Bayesian Dynamic Borrowing (BDB) approach that helps downweigh the external control arm when in disagreement with the placebo arm. The methodology extends standard BDB approaches to handle multivariate outcomes, both when the variance is known or unknown. Careful choice of multivariate vague distributions and trajectories give good operating characteristics that are evaluated via simulation.