A Practical Introduction to Simulating Complex Trial Designs

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Lecture 1: Introduction to simulation studies	9:00 – 09:45	PM
Importance of simulation studies, available guidelines (FDA, EMA, Morris), basic R syntax		
Lecture 2: Multi-arm trials	09:45 – 10:00	PM
Gentle intro to multi-arm trials, basic R syntax needed for the exercise		
Practical 1: Intro to simulation in R and simulation of multi-arm trials	10:00 – 11:00	PM
COFFEE BREAK	11:00 – 11:30	
Practical 1: Continued and discussion	11:30 – 12:15	PM
Lecture 3: Multi-arm Multi-Stage designs and MAMS Package	12:15 – 12:45	DC
Gentle intro to multi-arm multi-stage, common shapes of bounds, OCs of interest and basic	c MAMS syntax	
Practical 2 : Simulating a multi-arm multi-stage trial	12:45 – 13:00	DC
LUNCH	13:00 – 14:00	
Practical 2: Continued and discussion	14:00 – 15:45	DC
COFFEE BREAK	15:45 – 16:15	
Lecture 4: Constructing a comprehensive simulation study	16:15 – 17:00	PM

General considerations when constructing simulation studies in different settings, dose-finding, basket, RAR and MAMS examples