

RCTs Augmented with External Controls

Ex. Semaglutide and Major Adverse Cardiovascular Event (MACE)

- **Objective:** Potentially augment control arm while controlling Type 1 error
 - Pioneer 6 RCT
 - Optum observational data
- **Experiment-Selector CV-TMLE**
 - Select experiment (RCT only or RCT with RWD) that optimizes bias-variance tradeoff
 - Separate experiment-selection from effect estimation using cross-validation
 - Integrates negative control outcomes

