Step 4. Estimation and Inference using TMLE + SL

Case study 1: Data analysis

- **Analyze study data**
  - Outcome regression: Lasso with expert-selected covariates forced in
  - PS: Collaborative control Outcome-adaptive lasso (CC-OAL)
    - force in covariates selected in the outcome, others as candidates
    - C-TMLE to choose L1 norm

- **Result: RD = 0.005 (95% CI: -0.027, 0.038)**
  - crude RD = 0.024 (95% CI: 0.018, 0.030)

Crude estimate indicates NSAIDS increase risk for AKI

Adjustment moves point estimate towards the null