This repository contains R code implementing the simulation experiments from “Estimating Optimal Dynamic Treatment Strategies Under Resource Constraints Using Dynamic Marginal Structural Models”. Relevant generated objects and their interpretations are listed below.

* opt\_x\_rc2 is the estimated optimal strategy under resource constraints
* opt\_y\_rc2 is the estimated expected outcome under the constrained optimal strategy
* opt\_x2 is the estimated unconstrained optimal strategy
* opt\_y2 is the estimated expected outcome under the unconstrained optimal strategy
* actual\_opt\_y\_x\_hat is the actual (computed via Monte Carlo simulation) counterfactual mean outcome under the estimated unconstrained optimal strategy.
* actual\_opt\_y\_x\_hat\_rc is the actual (computed via Monte Carlo simulation) counterfactual mean outcome under the estimated resource constrained optimal strategy
* actual\_naive is the actual (computed via Monte Carlo simulation) counterfactual mean under the strategy: “follow the optimal unconstrained strategy until resources run out, then administer no further treatments”.