**Package/R functions**: OptimalCEITR

**Title**: Estimating the Optimal Individualized Treatment Rule from A Cost-Effectiveness Perspective

**Date**: 2020-07-09

**Depends**: R (>= 3.5.3), survival, rpart, dplyr, cubature

**Author**: Yizhe Xu and Jincheng Shen.

**Description**: This set of functions is created to estimate the optimal individualized treatment rule (ITR) by taking into account the trade-off between health benefits and added costs of an intervention. A statistical learning method is used to provide nonparametric estimations of the most cost-effective treatment decision, which is also tailored to individual heterogeneity.

**Usage**: There are two R files available in the zipped folder. The file “.OptimalCEITR.R” contains all the R functions that we created for this paper and the file “.Example.R” provides a simplified example for illustrating the use of our R functions to estimate the most cost-effective individualized treatment rule. Please execute the R functions before running the example code, and the libraries listed in *Depends* also need to be loaded first.

**Maintainer**: Yizhe Xu<yizhe.xu@hsc.utah.edu>

**URL**: https://github.com/CrystalXuR/CEAOptimalITR

**NeedsCompilation**: yes