Yizhe Xu and Jincheng Shen. **Estimating the Optimal Individualized Treatment Rule from A Cost-Effectiveness Perspective**. Biometrics (conditional acceptance). 2020.

**Package/R function**: OptimalCEITR

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

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

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**Description**: The *OptimalCEITR* function 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 and an example data set available in the zipped folder. The file “OptimalCEITR.R” contains the *OptimalCEITR* function that we created for this paper and the file “Example.R” provides a simplified example for illustrating the use of our function to estimate the most cost-effective individualized treatment rule. Please execute the *OptimalCEITR* function before running the example code and make sure the libraries listed in *Depends* are loaded.

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

**NeedsCompilation**: yes