

Package ‘AhasHfBkleAmputation’

February 22, 2018

Type Package

Title Comparison of Canagliflozin vs. Alternative Antihyperglycemic Treatments on Risk of Heart Failure Hospitalization and Amputation for Patients with Type 2 Diabetes Mellitus and the Subpopulation with Established Cardiovascular Disease

Version 1.0.0

Author Frank J DeFalco (fdefalco@its.jnj.com),
Martijn J. Schuemie [aut]
Patrick B. Ryans [aut]

Maintainer Frank J DeFalco <fdefalco@its.jnj.com>

Description Execution of Study 501 Estimation Study Execution.

Depends DatabaseConnector

Imports SqlRender,
EmpiricalCalibration,
Cyclops,
FeatureExtraction (>= 2.1.0),
CohortMethod,
rmarkdown,
ggplot2,
ff,
ffbase,
OhdsiRTools (>= 1.5.1)

License Apache 2.0

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

R topics documented:

createAnalysesDetails	2
createCohorts	2
createFiguresAndTables	3
createPriorOutcomesCovariateSettings	4
execute	4
generateDiagnostics	6

Index	7
--------------	---

`createAnalysesDetails` *Create the analyses details*

Description

Create the analyses details

Usage

```
createAnalysesDetails(workFolder)
```

Arguments

`workFolder` Name of local folder to place results; make sure to use forward slashes (/)

Details

This function creates files specifying the analyses that will be performed.

`createCohorts` *Create the exposure and outcome cohorts*

Description

Create the exposure and outcome cohorts

Usage

```
createCohorts(connectionDetails, cdmDatabaseSchema, cohortDatabaseSchema,
  cohortTable = "cohort", oracleTempSchema, outputFolder)
```

Arguments

`connectionDetails`
An object of type `connectionDetails` as created using the [createConnectionDetails](#) function in the DatabaseConnector package.

`cdmDatabaseSchema`
Schema name where your patient-level data in OMOP CDM format resides. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.

`cohortDatabaseSchema`
Schema name where intermediate data can be stored. You will need to have write privileges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.

`cohortTable` The name of the table that will be created in the work database schema. This table will hold the exposure and outcome cohorts used in this study.

`oracleTempSchema`
Should be used in Oracle to specify a schema where the user has write privileges for storing temporary tables.

`outputFolder` Name of local folder to place results; make sure to use forward slashes (/)

Details

This function will create the exposure and outcome cohorts following the definitions included in this package.

```
createFiguresAndTables
```

Generate diagnostics

Description

Generate diagnostics

Usage

```
createFiguresAndTables(outputFolder, connectionDetails, cohortDatabaseSchema,
  cohortTable, oracleTempSchema = oracleTempSchema)
```

Arguments

- | | |
|----------------------|--|
| outputFolder | Name of local folder where the results were generated; make sure to use forward slashes (/). Do not use a folder on a network drive since this greatly impacts performance. |
| connectionDetails | An object of type connectionDetails as created using the createConnectionDetails function in the DatabaseConnector package. |
| cohortDatabaseSchema | Schema name where intermediate data can be stored. You will need to have write privileges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'. |
| cohortTable | The name of the table that will be created in the work database schema. This table will hold the exposure and outcome cohorts used in this study. |
| oracleTempSchema | Should be used in Oracle to specify a schema where the user has write privileges for storing temporary tables. |

Details

This function generates figures and tables for the paper. Requires the study to be executed first.

```
createPriorOutcomesCovariateSettings
```

Create settings for adding prior outcomes as covariates

Description

Create settings for adding prior outcomes as covariates

Usage

```
createPriorOutcomesCovariateSettings(outcomeDatabaseSchema = "unknown",
  outcomeTable = "unknown", outcomeIds, outcomeNames, windowStart = -365,
  windowEnd = -1)
```

Arguments

outcomeDatabaseSchema	The name of the database schema that is the location where the data used to define the outcome cohorts is available.
outcomeTable	The tablename that contains the outcome cohorts.
outcomeIds	A vector of cohort_definition_ids used to define outcomes
outcomeNames	A vector of names of the outcomes, to be used to create covariate names.
windowStart	Start day of the window where covariates are captured, relative to the index date (0 = index date).
windowEnd	End day of the window where covariates are captured, relative to the index date (0 = index date).

Value

A covariateSettings object.

```
execute
```

Execute AhasHfBkleAmputation Study

Description

Execute AhasHfBkleAmputation Study

Usage

```
execute(connectionDetails, cdmDatabaseSchema,
  cohortDatabaseSchema = cdmDatabaseSchema, cohortTable = "cohort",
  oracleTempSchema = cohortDatabaseSchema, outputFolder,
  createCohorts = TRUE, runAnalyses = TRUE, runDiagnostics = TRUE,
  maxCores = 4)
```

Arguments

connectionDetails	An object of type connectionDetails as created using the createConnectionDetails function in the DatabaseConnector package.
cdmDatabaseSchema	Schema name where your patient-level data in OMOP CDM format resides. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
cohortDatabaseSchema	Schema name where intermediate data can be stored. You will need to have write privileges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
cohortTable	The name of the table that will be created in the work database schema. This table will hold the exposure and outcome cohorts used in this study.
oracleTempSchema	Should be used in Oracle to specify a schema where the user has write privileges for storing temporary tables.
outputFolder	Name of local folder to place results; make sure to use forward slashes (/). Do not use a folder on a network drive since this greatly impacts performance.
createCohorts	Create the cohortTable table with the exposure and outcome cohorts?
runAnalyses	Perform the cohort method analyses?
runDiagnostics	Should study diagnostics be generated?
maxCores	How many parallel cores should be used? If more cores are made available this can speed up the analyses.

Details

This function executes the AhasHfBkleAmputation Study.

Examples

```
## Not run:
connectionDetails <- createConnectionDetails(dbms = "postgresql",
                                             user = "joe",
                                             password = "secret",
                                             server = "myserver")

execute(connectionDetails,
        cdmDatabaseSchema = "cdm_data",
        cohortDatabaseSchema = "results",
        cohortTable = "cohort",
        oracleTempSchema = NULL,
        outputFolder = "c:/temp/study_results",
        maxCores = 4)

## End(Not run)
```

generateDiagnostics	<i>Generate diagnostics</i>
---------------------	-----------------------------

Description

Generate diagnostics

Usage

```
generateDiagnostics(outputFolder)
```

Arguments

outputFolder	Name of local folder where the results were generated; make sure to use forward slashes (/). Do not use a folder on a network drive since this greatly impacts performance.
--------------	---

Details

This function generates analyses diagnostics. Requires the study to be executed first.

Index

`createAnalysesDetails`, [2](#)
`createCohorts`, [2](#)
`createConnectionDetails`, [2](#), [3](#), [5](#)
`createFiguresAndTables`, [3](#)
`createPriorOutcomesCovariateSettings`,
 [4](#)

`execute`, [4](#)

`generateDiagnostics`, [6](#)