Package 'CiCalibration'

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Title Confidence Interval Calibration Evaluation study

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Description What the study does (paragraph)

Depends R (>= 3.2.2),
DatabaseConnector

Imports SqlRender,
MethodEvaluation,
FeatureExtraction (>= 1.2.0),
CohortMethod,
SelfControlledCaseSeries,
CaseControl,
EmpiricalCalibration (>= 1.2.2),
DBI,
ggplot2

Suggests testthat

License Apache License 2.0

LazyData true

RoxygenNote 6.0.1

R topics documented:

createAnalysesDetails *Create the analyses details*

Description

Create the analyses details

Usage

```
createAnalysesDetails(connectionDetails, cdmDatabaseSchema, workFolder)
```

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'.
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, workDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema,
  study = "Tata", workFolder)
```

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'.

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

`studyCohortTable`
: 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 priviliges for storing temporary tables.

`study`
: For which study should the cohorts be created? Options are "SSRIs" and "Dabigatran".

`workFolder`
: 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.

`doEmpiricalCalibration` *Perform empirical calibration*

Description

Perform empirical calibration

Usage

```
doEmpiricalCalibration(workFolder, study)
```

Arguments

`workFolder`
: The path to the output folder containing the results.

Details

Performs empirical calibration of confidence intervals and p-values using the negative and positive control outcomes.

execute *Execute OHDSI Celecoxib versus non-selective NSAIDs study*

Usage

```
execute(connectionDetails, cdmDatabaseSchema,
  workDatabaseSchema = cdmDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema = NULL,
  cdmVersion = 5, study, workFolder, createCohorts = TRUE,
  injectSignals = TRUE, runAnalyses = TRUE, empiricalCalibration = TRUE,
  packageResultsForSharing = 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'.
workDatabaseSchema	Schema name where intermediate data can be stored. You will need to have write priviliges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
studyCohortTable	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 priviliges for storing temporary tables.
cdmVersion	Version of the CDM. Can be "4" or "5"
workFolder	Name of local folder to place results; make sure to use forward slashes (/)

Details

This function executes the OHDSI Celecoxib versus non-selective NSAIDs study.

Value

TODO

Examples

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

execute(connectionDetails,
```

```
        cdmDatabaseSchema = "cdm_data",
        workDatabaseSchema = "results",
        oracleTempSchema = NULL,
        workFolder = "c:/temp/study_results",
        cdmVersion = "5")


## End(Not run)
```

`injectSignals` *Inject outcomes on top of negative controls*

Description

Inject outcomes on top of negative controls

Usage

```
injectSignals(connectionDetails, cdmDatabaseSchema, workDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema, study,
  workFolder, 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'.
`workDatabaseSchema`	Schema name where intermediate data can be stored. You will need to have write priviliges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
`studyCohortTable`	The name of the study cohort table in the work database schema.
`oracleTempSchema`	Should be used in Oracle to specify a schema where the user has write priviliges for storing temporary tables.
`study`	For which study should the cohorts be created? Options are "SSRIs" and "Dabigatran".
`workFolder`	Name of local folder to place results; make sure to use forward slashes (/)
`maxCores`	How many parallel cores should be used? If more cores are made available this can speed up the analyses.

Details

This function injects outcomes on top of negative controls to create controls with predefined relative risks greater than one.

packageResults *Package the results for sharing with OHDSI researchers*

Description

Package the results for sharing with OHDSI researchers

Usage

```
packageResults(outputFolder)
```

Arguments

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

Details

This function packages the results.

runCaseControl *Run case control*

Description

Run case control

Usage

```
runCaseControl(connectionDetails, cdmDatabaseSchema,
  workDatabaseSchema = cdmDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema = NULL,
  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'.
workDatabaseSchema	Schema name where intermediate data can be stored. You will need to have write priviliges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
studyCohortTable	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 priviliges for storing temporary tables.

`maxCores`
: How many parallel cores should be used? If more cores are made available this can speed up the analyses.

`runCohortMethodGraham` *Run the Graham study replication*

Description

Run the Graham study replication

Usage

```
runCohortMethodGraham(connectionDetails, cdmDatabaseSchema,
  workDatabaseSchema = cdmDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema = NULL,
  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'.

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

`studyCohortTable`
: 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 priviliges for storing temporary tables.

`maxCores`
: How many parallel cores should be used? If more cores are made available this can speed up the analyses.

`runCohortMethodSouthworth` *Run the Southworth study replication*

Description

Run the Southworth study replication

Usage

```
runCohortMethodSouthworth(connectionDetails, cdmDatabaseSchema,
  workDatabaseSchema = cdmDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema = NULL,
  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'.
`workDatabaseSchema`	Schema name where intermediate data can be stored. You will need to have write priviliges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
`studyCohortTable`	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 priviliges for storing temporary tables.
`maxCores`	How many parallel cores should be used? If more cores are made available this can speed up the analyses.

`runSccs` *Run the self-controlled case series*

Description

Run the self-controlled case series

Usage

```
runSccs(connectionDetails, cdmDatabaseSchema,
  workDatabaseSchema = cdmDatabaseSchema,
  studyCohortTable = "ohdsi_ci_calibration", oracleTempSchema = NULL,
  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'.
workDatabaseSchema	Schema name where intermediate data can be stored. You will need to have write priviliges in this schema. Note that for SQL Server, this should include both the database and schema name, for example 'cdm_data.dbo'.
studyCohortTable	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 priviliges for storing temporary tables.
maxCores	How many parallel cores should be used? If more cores are made available this can speed up the analyses.

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