Package ‘akiFlagger’

April 7, 2021

Title Flags Acute Kidney Injury (AKI)
Version 0.3.0
Description Flagger to detect acute kidney injury (AKI) in a patient dataset.
License MIT + file LICENSE
Encoding UTF-8
LazyData true
RoxygenNote 7.1.1
Imports dplyr, data.table, zoo, shiny
Suggests testthat
Depends R (>= 3.5.0)
URL https://github.com/isaranwrap/akiFlagger
BugReports https://github.com/isaranwrap/akiFlagger/issues
NeedsCompilation no
Author Ishan Saran [aut, cre],
Shivam Saran [aut],
Rishi Saran [aut],
Aditya Biswas [ctb],
Sankee Mummareddy [ctb],
Yu Yamamoto [ctb],
Francis Perry Wilson [ctb, ths]
Maintainer Ishan Saran <ishansaran65@gmail.com>
Repository CRAN
Date/Publication 2021-04-07 13:00:02 UTC

R topics documented:

returnAKIpatients .................................................. 2
runGUI ................................................................. 3
toy ................................................................. 3
toy.demo .......................................................... 4

Index 5
returnAKIpatients  

Flag patients for AKI

Description

Add in the AKI column in a patient dataframe according to the KDIGO criterion

Usage

```r
returnAKIpatients(
  dataframe,
  HB_trumping = FALSE,
  eGFR_impute = FALSE,
  window1 = as.difftime(2, units = "days"),
  window2 = as.difftime(7, units = "days"),
  padding = as.difftime(0, units = "days"),
  add_min_creat = FALSE,
  add_baseline_creat = FALSE,
  add_imputed_admission = FALSE,
  add_imputed_encounter = FALSE
)
```

Arguments

- **dataframe**: patient dataset
- **HB_trumping**: boolean on whether to have historical baseline creatinine values trump the local minimum creatinine values
- **eGFR_impute**: boolean on whether to impute missing baseline creatinine values with CKD-EPI equation
- **window1**: rolling window length of the shorter time window; defaults to 48 hours
- **window2**: rolling window length of the longer time window; defaults to 162 hours
- **padding**: padding to add to rolling windows; defaults to 0 hours
- **add_min_creat**: boolean on whether to add the intermediate columns generated during calculation
- **add_baseline_creat**: boolean on whether to add the baseline creatinine values
- **add_imputed_admission**: boolean on whether to add the imputed admission column in
- **add_imputed_encounter**: boolean on whether to add the imputer encounter id column in

Value

- patient dataset with AKI column added in

#Imports
### runGUI

**Examples**

```r
returnAKIpatients(toy)
```

---

### GUI Shiny App

**Description**

GUI Shiny App

**Usage**

```r
runGUI()
```

---

### Toy dataset

**Description**

Since real patient data is probably protected health information (PHI), this toy dataset contains all the relevant columns the flagger takes in.

**Usage**

```r
toy
```

**Format**

A data frame (1078 x 6) consisting of relevant AKI measurements for patients

- **patient_id** int, the patient identifier
- **inpatient** boolean, whether or not the creatinine measurement taken was an inpatient measurement
- **time** POSIXct, the time at which the creatinine measurement was taken
- **creatinine** float, the creatinine value of the measurement taken

@source [http://akiflagger.readthedocs.io/](http://akiflagger.readthedocs.io/)
Description

Since real patient data is probably protected health information (PHI), this toy dataset contains all the relevant columns the flagger takes in.

Usage

toy.demo

Format

A data frame (1078 x 6) consisting of relevant AKI measurements for patients

- **patient_id** int, the patient identifier
- **age** float, the age of the patient
- **sex** boolean, whether the patient is female or not
- **race** boolean, whether the patient is black or not
- **inpatient** boolean, whether or not the creatinine measurement taken was an inpatient measurement
- **time** POSIXct, the time at which the creatinine measurement was taken
- **creatinine** float, the creatinine value of the measurement taken

@source http://akiflagger.readthedocs.io/
Index

* datasets
  toy, 3
  toy.demo, 4

returnAKIpatients, 2
runGUI, 3

toy, 3
toy.demo, 4