

Package ‘touch’

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Title Tools of Utilization and Cost in Healthcare

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Description Tools of utilization and cost in healthcare is an R implementation of the software tools developed in the H-CUP (Healthcare Cost and Utilization Project) <https://www.hcup-us.ahrq.gov/toolssoftware/comorbidity/comorbidity.jsp> at AHRQ (Agency for Healthcare Research and Quality) <http://www.ahrq.gov>. It currently contains functions to map ICD9 code to AHRQ comorbidity measures.

Depends R ($\geq 3.2.0$)

Imports stringr

License GPL (≥ 3)

URL <https://github.com/LiYanStat/touch>

BugReports <https://github.com/LiYanStat/touch/issues>

Repository CRAN

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NeedsCompilation no

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`cmbd`*Comorbidity measures from AHRQ HCUP*

Description

This function maps a matrix of ICD9 codes to AHRQ comorbidity measures.

Usage

```
cmbd(icd, drg = NULL, needClean = TRUE, needPrep = TRUE)
```

Arguments

<code>icd</code>	a character matrix of icd9 codes, with rows representing patients.
<code>drg</code>	a numeric vector of drg codes, with length the same as <code>nrow(icd)</code> .
<code>needClean</code>	logical, TRUE means cleaning is needed (string trimming, zero supplementation)
<code>needPrep</code>	logical, TRUE means preparation is needed (convert char to numeric)

Value

a matrix with the same number of rows as the input and with the comorbidity measures in columns

Author(s)

Jun Yan

References

Elixhauser et. al. (1998)

Examples

```
data(dxDat)
drg <- dxDat$drg
icd <- dxDat[, -1L]
output <- cmbd(icd, drg=drg)
```

dxDat *Sample Data of Diagnosis Code*

Description

A data frame of diagnosis code with variates named drg and dx1, dx2, ..., dx10, where

- drg: drg code for comorbidity;
- dx1-dx10: icd-9 code for 10 diagnoses.

Usage

```
data(dxDat)
```

Format

A data frame with 1000 rows and 11 variables.

Examples

```
data(dxDat)
drg <- dxDat$drg
icd <- dxDat[, - 1L]
```

icd9Clean *Reformat Comorbidity Measures*

Description

This function processes the character matrix of ICD9 codes by converting them to character codes of length 5. For SAS procedure from HCUP, it trims all character string to be of length 5, adds the missing trailing white space, and capitalizes the first character in ICD9 codes.

Usage

```
icd9Clean(input, style = c("touch", "hcup"))
```

Arguments

input	a character matrix of ICD9 codes, with rows representing patients.
style	a character vector of length one indicating the reformatting style to follow. The possible options are "touch" and "hcup". The former does the cleaning for this package; The latter does the reformatting for the SAS script provided by HCUP.

Value

a matrix of cleaned ICD9 codes.

Author(s)

Jun Yan and Wenjie Wang

Examples

```
data(dxDat)
icd <- dxDat[, -1L]
output <- icd9Clean(icd)
```

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