

# Package ‘CCSRfind’

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**Type** Package

**Title** Convert ICD-10 Codes to CCSR Codes

**Version** 0.1.0

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**Description** Provides a tool for matching ICD-10 codes to corresponding Clinical Classification Software Refined (CCSR) codes. The main function, `CCSRfind()`, identifies each CCSR code that applies to an individual given their diagnosis codes. It also provides a summary of CCSR codes that are matched to a dataset. The package contains 3 datasets: 'DX-CCSR' (mapping of ICD-10 codes to CCSR codes), 'Legend' (conversion of DXCCSR to CCSRfind-usable format for CCSR codes with less than or equal to 1000 ICD-10 diagnosis codes), and 'LegendExtend' (conversion of DXCCSR to CCSRfind-usable format for CCSR codes with more than 1000 ICD-10 dx codes). The `disc()` function applies `grep()` ('base') to multiple columns and is used in `CCSRfind()`.

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**Imports** knitr

**Depends** R (>= 2.10)

**RoxygenNote** 7.3.1

**NeedsCompilation** no

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**Repository** CRAN

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CCSRfind	<i>Identify CCSR codes corresponding to ICD-10 codes</i>
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**Description**

Identify CCSR codes corresponding to ICD-10 codes

**Usage**

```
CCSRfind(workset, dxs, example = FALSE)
```

**Arguments**

workset	Dataset with ICD-10 codes
dxs	List of column name(s) of ICD-10 codes within workset
example	indicator if running an example, default is FALSE

**Value**

A list of CCSR codes corresponding to the ICD-10 codes

**Examples**

```
# Example dataset
id<-c(1:2)
dx1<-c("A000", "B0189")
dx2<-c("A157", "E133591")
workset<-data.frame(id, dx1, dx2)

dxs<-c("dx1", "dx2")

# Convert to CCSR codes
CCSRfind(workset=workset, dxs=dxs, example=TRUE)
```

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disc	<i>Helper function to search for specific strings from multiple columns of data</i>
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**Description**

Helper function to search for specific strings from multiple columns of data

**Usage**

```
disc(mydata, cols, sts)
```

**Arguments**

<code>mydata</code>	Dataset containing ICD-10 codes
<code>cols</code>	A vector of column names to bind in mydata
<code>sts</code>	A regular expression string that the function will search for

**Value**

A vector indicating whether the string has been found

**Examples**

```
# Example dataset
id<-c(1:10)
dx1<-c("A000", "B0189", "A501", "H16233", "A5443", "E211", "A1832", "A401", "A501", "H65114")
dx2<-c("A157", "E133591", "A5611", "H60311", "H02219", "A064", "H11039", "F481", "H26102", "B91")
dx3<-c("M9701XS", "M9702XS", "M9711XS", "A500", "B90", "A1828", "M9731XS", "E212", "M9741XS", "B89")
mydata<-data.frame(id,dx1,dx2,dx3)

cols<-c("dx1", "dx2", "dx3")
sts<-"A501|E133591"
disc(mydata=mydata, cols=cols, sts=sts)
```

DXCCSR

*Data to showcase CCSR-ICD-10 crosswalk***Description**

The Clinical Classifications Software Refined (CCSR) for ICD-10-CM diagnoses aggregates more than 70,000 ICD-10-CM diagnosis codes into over 530 clinically meaningful categories. The CCSR is based on the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM). The categories are organized across 22 body systems, which generally follow the structure of the ICD-10-CM diagnosis chapters.

**Usage**

```
DXCCSR
```

**Format**

A data frame with 86855 rows and 7 variables:

**ICD10** ICD-10 diagnosis codes

**icd\_10\_cm\_code\_description** Text description of ICD-10 codes

**CCSRCat** CCSR category corresponding to ICD-10 code

**CCSRD** Text description of CCSR category

**inpatient\_default\_ccsr\_y\_n\_x** Indicator of whether or not the CCSR category is the default category in an inpatient setting

**outpatient\_default\_ccsr\_y\_n\_x** Indicator of whether or not the CCSR category is the default category in an outpatient setting

**rationale\_for\_default\_assignment** Rationale for the default assignment

### Source

<https://hcup-us.ahrq.gov/toolssoftware/ccsr/dxccsr.jsp>

### Examples

```
data(DXCCSR)
head(DXCCSR)
```

---

Legend

*This dataset contains CCSR codes that are associated with over all ICD-10 codes*

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### Description

This dataset contains CCSR codes that are associated with over all ICD-10 codes

### Usage

Legend

### Format

A data frame with 543 rows and 3 variables:

**CCSRCat** CCSR category corresponding to ICD-10 code

**CCSRD** Text description of CCSR category

**codecolvec** A regular expression listing all the ICD-10 codes for the CCSR code

### Source

<https://hcup-us.ahrq.gov/toolssoftware/ccsr/dxccsr.jsp>

### Examples

```
data(Legend)
head(Legend)
```

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LegendExtend	<i>This dataset contains CCSR codes for which there are over 1,000 individual ICD-10 codes</i>
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**Description**

This dataset contains CCSR codes for which there are over 1,000 individual ICD-10 codes

**Usage**

LegendExtend

**Format**

A data frame with 9 rows and 3 variables:

**CCSRCat** CCSR category corresponding to ICD-10 code

**CCSRD** Text description of CCSR category

**codecolvec** A regular expression listing all the ICD-10 codes for the CCSR code

**Source**

<https://hcup-us.ahrq.gov/toolssoftware/ccsr/dxccsr.jsp>

**Examples**

```
data(LegendExtend)
head(LegendExtend)
```

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