# Package: CCSRfind (via r-universe)

November 3, 2026

**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: 'DXCCSR' (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 grepl() ('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** https://mlr6219-ui.r-universe.dev

**Date/Publication** 2024-08-20 02:47:40 UTC

**RemoteUrl** https://github.com/cran/CCSRfind

**RemoteRef** HEAD

**RemoteSha** 02de8410cbf2957c2c1e14d5e9fd2339a15c3ecc

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`CCSRfind` *Identify CCSR codes corresponding to ICD-10 codes*

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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)
```

## disc — *Helper function to search for specific strings from multiple columns of data*

### Description

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

### Usage

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

### Arguments

| | |
|---|---|
| mydata | Dataset containing ICD-10 codes |
| cols | A vector of column names to bind in mydata |
| sts | 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*

---

## 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)
```

---

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

---

## 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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