

# Package ‘rClinicalCodes’

July 2, 2014

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**Version** 1.0.1

**License** GPL-2

**Title** R tools for integrating with the www.clinicalcodes.org repository

**Description** R tools for integrating with the www.clinicalcodes.org web repository

**LazyData** true

**NeedsCompilation** no

**Date** 2014-04-30

**Depends** R (>= 2.15)

**Imports** stringr, RCurl, XML, rjson, tm

**Suggests** testthat, roxygen2,

**Repository** CRAN

**Date/Publication** 2014-06-23 15:43:49

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`all_ClinicalCodes_articles`*Downloads a list of all articles in ClinicalCodes*

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**Description**

This function gives a dataframe of all articles listed in the ClinicalCodes repository.

**Usage**

```
all_ClinicalCodes_articles()
```

**Details**

Article IDs from the list are included and can then be passed to the download functions to import codelists and research objects into R

**Value**

A dataframe of article information, links and IDs

**Examples**

```
## Not run:  
all_articles <- all_ClinicalCodes_articles()  
  
## End(Not run)
```

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`codelists_for_ro`*Associates lists of clinical codes with a ClinicalCodes research object*

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**Description**

This function uses the `codelist_url` slot in a Research object to download codelists

**Usage**

```
codelists_for_ro(ro)
```

**Arguments**

`ro` an object of class `ResearchObject`

**Details**

Internally it calls the `get_clinicalcodes()` function with a `url` argument

**Value**

a new ResearchObject with associated clinicalcodes dataframes for all codelists

**Examples**

```
## Not run:  
# get research object without codes  
RO <- research_object(article_id = 2, download_codes = FALSE)  
# associate codes  
RO <- codelists_for_ro(RO)  
  
## End(Not run)
```

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codelist_keywords	<i>Extract keywords from clinical code lists</i>
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**Description**

This function takes a dataframe of clinical codes and gives a vector of keywords, sorted by frequency

**Usage**

```
codelist_keywords(codelist, keyword_column = "description",  
extra_stopwords = NULL)
```

**Arguments**

codelist	a dataframe of clinical codes, such as downloaded using the <code>get_ClinicalCodes</code> function
keyword_column	The column of the dataframe to extract keywords from
extra_stopwords	an optional character vector of further stopwords to remove

**Details**

All terms are converted to lower case. Common stopwords, whitespace and punctuation are removed Optional `extra_stopwords` vector

**Value**

character vector of keywords, sorted by frequency in the list

## Examples

```
## Not run:
# Get codelist from url:
angina_codes <- get_ClinicalCodes(
url = "https://clinicalcodes.rss.mhs.man.ac.uk/medcodes/article/6/codelist/angina/download/")
codelist_keywords(angina_codes, extra_stopwords = c("good", "poor", "[x]"))

## End(Not run)
```

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get\_ClinicalCodes      *Downloads clinical codes file from ClinicalCodes.org*

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## Description

Either specify the full path or the article id and codelist name. If an article\_id is supplied but no codelist\_name, all codelists are downloaded and saved as a list.

## Usage

```
get_ClinicalCodes(url = NULL, article_id = NULL, codelist_name = NULL)
```

## Arguments

url	character representing the url of a codelist download on <a href="http://www.clinicalcodes.org">www.clinicalcodes.org</a>
article_id	integer representing the id of a <a href="http://www.ClinicalCodes.org">www.ClinicalCodes.org</a> article
codelist_name	character representing a codelist name associated with an article on <a href="http://www.ClinicalCodes.org">www.ClinicalCodes.org</a>

## Value

a dataframe of clinical codes or a list of dataframes of clinical codes

## Examples

```
## Not run:
# Get codelist from url:
angina_codes <- get_ClinicalCodes(
url = "https://clinicalcodes.rss.mhs.man.ac.uk/medcodes/article/6/codelist/angina/download/")
head(angina_codes)
# get codelist by id and name
depression_codes <- get_ClinicalCodes(article_id = 6, codelist_name = "depression")
head(depression_codes)
# Get all code lists for an article
codelists <- get_ClinicalCodes(article_id = 2)
sapply(codelists, nrow)

## End(Not run)
```

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rClinicalCodes	<i>rClinicalCodes, R interface to the www.ClinicalCodes.org repository for clinical codes.</i>
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**Description**

rClinicalCodes, R interface to the www.ClinicalCodes.org repository for clinical codes.

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research_object	<i>Downloads Research objects for articles from www.clinicalcodes.org</i>
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**Description**

This function builds an R representation of a ClinicalCodes Research object

**Usage**

```
research_object(article_ids, download_codes = FALSE, trim = 50)
```

**Arguments**

article_ids	integer representing the id of a www.ClinicalCodes.org article
download_codes	logical should the individual code lists be downloaded as part of the research object?
trim	integer How many characters from titles should be included in list names for multiple codelists?

**Details**

The ResearchObject contains metadata describing the article (URI, abstract, ID, title, authors, doi, journal etc.), comments on the article, codelist metadata (associated articles, name, url, number of codes in the list, user field names, comments) and optional full codelists. The individual codelists can be downloaded directly with the download\_codes argument set to TRUE. Otherwise they can be associated later using the codelists\_for\_ro() function

**Value**

an object of class ResearchObject (R representation of a ClinicalCodes research object)

**Examples**

```
## Not run:
# get research object and codes
RO <- research_object(article_ids = 2, download_codes = FALSE)
ROs <- research_object(article_ids = 5:7, download_codes = FALSE)

## End(Not run)
```

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