

Package ‘ms.sev’

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Type Package

Title Package for Calculation of ARMSS, Local MSSS and Global MSSS

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Description Calculates ARMSS (age related multiple sclerosis severity), and both local and global MSSS (multiple sclerosis severity score).

License GPL-2

NeedsCompilation no

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ms_sev-package

Estimation of severity scores for multiple sclerosis.

Description

Estimation of severity scores for multiple sclerosis.

Details

Package: ms_sev
Type: Package
Version: 1.0
Date: 2015-01-30
License: GPL 2

Author(s)

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edss

Data for testing ms.sev package

Description

Mock data for 2,000 individuals to test the ms.sev package.

Usage

```
data(edss)
```

Format

A data frame consisting of 6 columns and 2,000 rows. The rows corresponds to EDSS value, age at which the EDSS score was assessed and disease duration.

References

To be completed. Please contact maintainer.

`globalArmss`*Global ARMSS matrix*

Description

The global ARMSS-matrix provided with the ms.sev-package

Usage

```
data(globalArmss)
```

Format

A data frame consisting of 20 columns and 30 rows, corresponding to EDSS-scores in 0.5-increments, and disease duration. The first row marks the disease duration.

References

To be completed. Please contact maintainer.

`globalMsss`*Global MSSS matrix*

Description

The global MSSS-matrix provided with the ms.sev-package

Usage

```
data(globalMsss)
```

Format

This is the new, updated MSSS-matrix. A data frame consisting of 20 columns and 30 rows, corresponding to EDSS-scores in 0.5-increments, and disease duration. The first column is corresponding to disease duration.

References

To be completed. Please contact maintainer.

global_armss

ARMSS

Description

Calculates and returns the global ARMSS-score for every individual in the dataset.

Usage

```
global_armss(data, matrix=FALSE)
```

Arguments

`data` A dataframe containing the variable "ageatedss" and the variable "edss" for every individual.

`matrix` If the global ARMSS table should be returned or not.

Value

Returns the initially supplied dataframe with the added variable "gARMSS".

Author(s)

Helga Westerlind, Ali Manouchehrinia

References

To be completed. Please contact maintainer.

Examples

```
data(edss)
out <- global_armss(edss)
```

global_msss*Global MSSS*

Description

Estimation of global MSSS-scores.

Usage

```
global_msss(data, matrix=FALSE, omsss=FALSE)
```

Arguments

data	A dataframe containing the variable "dd" (disease duration) and the variable "edss" for every individual.
matrix	If the global MSSS-matrix should be returned or not.
omsss	If true, the old MSSS score is returned for every individual.

Details

Estimation of global MSSS-scores.

Value

Returns the provided dataframe with an added column of global msss-scores.

data	The supplied dataframe with an added uGMSSS column representing the global msss-score. If omsss is requested, an additional variable named oGMSSS is also added.
globalMsss	The global MSSS-matrix with columns representing EDSS-scores and rows disease duration, starting at 1 and truncated at 30. This item is only returned if matrix=T. If omsss is requested, the old MSSS matrix is also returned.

Author(s)

Helga Westerlind, Ali Manouchehrinia

References

To be completed. Please contact maintainer.

Examples

```
data(edss)
out <- global_msss(edss, matrix=TRUE, omsss=TRUE)
```

local_armss

ARMSS

Description

Calculates and returns the local ARMSS-score for every individual in the dataset.

Usage

```
local_armss(data, range = 2)
```

Arguments

data	A dataframe containing the variable "ageatedss" and the variable "edss" for every individual.
range	The age-range from which to include individuals in the ARMSS-estimation. Default=2.

Value

Returns the initially supplied dataframe with the added variable "armss".

Author(s)

Helga Westerlind, Ali Manouchehrinia

References

To be completed. Please contact maintainer.

Examples

```
data(edss)
out <- local_armss(edss)
```

local_msss

Local MSSS

Description

Estimation of local MSSS-scores.

Usage

```
local_msss(data, range=2)
```

Arguments

data	A data frame including the variables "edss" and "dd" (disease duration), which is estimating the disease duration from onset to edss.
range	The age range in which to include individuals in the msss calculation. The default value is set to two.

Value

The supplied data frame with an added column "lMSSS" including the estimated local MSSS for every individual.

Author(s)

Helga Westerlind, Ali Manouchehrinia

References

To be completed. Please contact maintainer.

Examples

```
data(edss)
out <- local_msss(edss)
```

ms_sev

MS-Severity

Description

Estimates the severity score for the user supplied data frame of patients.

Usage

```
ms_sev(data, type="global_armss", range = 2, matrix=F, omsss=FALSE)
```

Arguments

data	A dataframe containing the variable "edss" for every individual and "age" if "armss" is requested. For MSSS estimation, a variable "dd", corresponding to the disease duration, is needed.
type	Specification of the type of severity calculation. Default is global armss. Other options are "local_armss", "local_msss" and "global_msss".
range	The age-range from which to include individuals in the local ARMSS and local MSSS-estimations. The default age-range is 2 years.
matrix	If true, the global MSSS-matrix is returned. Please note that this option only works for global MSSS and global ARMSS.
omsss	If true, the old MSSS-score will be estimated and returned. Please note that this option only works for the global MSSS.

Value

Returns the initially supplied dataframe with a column added with the requested type of severity score. If "matrix" is set to true, the ms_sev will return a list where the first element is the data frame with the added severity score, and the second item is the requested ARMSS/MSSS matrix. If omsss is set to TRUE, both the old and the updated MSSS matrix will be returned.

Author(s)

Helga Westerlind, Ali Manouchehrinia

References

To be completed. Please contact maintainer.

Examples

```
data(edss)
out <- ms_sev(edss)
head(out$data)
out <- ms_sev(edss, type="global_msss", matrix=TRUE)

head(out$data)
```

oldMsss

the old Global MSSS matrix

Description

The global MSSS-matrix provided with the ms.sev-package

Usage

```
data(oldMsss)
```

Format

A data frame consisting of 20 columns and 30 rows, corresponding to EDSS-scores in 0.5-increments, and disease duration. This is the original MSSS matrix. The first column is corresponding to disease duration.

References

To be completed. Please contact maintainer.

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