

# Package: NHSRepsodes (via r-universe)

November 15, 2024

**Title** Package Relating to Hospital Episode Intervals

**Version** 0.1.0.9000

**Description** Hospital episodes can overlap or have gaps which can result in under or over counting. This package contains functions which can be used to rectify this common analytical issue in NHS data.

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**Encoding** UTF-8

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.2.3

**Imports** data.table

**Suggests** dplyr, ivs, knitr, rmarkdown, testthat (>= 3.0.0), tibble

**Config/testthat/edition** 3

**VignetteBuilder** knitr

**URL** <https://nhs-r-community.github.io/NHSRepsodes/>

**Repository** <https://nhs-r-community.r-universe.dev>

**RemoteUrl** <https://github.com/nhs-r-community/NHSRepsodes>

**RemoteRef** main

**RemoteSha** 48a13b1e5113017a9bdced5785bbdb78a6ebc871

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add\_parent\_interval     *Calculate parent intervals*

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### Description

add\_parent\_interval() calculates the minimum spanning interval that contains overlapping episodes and adds this to the input. Methods are provided for data.frame like objects.

### Usage

```
add_parent_interval(x, ...)

## Default S3 method:
add_parent_interval(x, ...)

## S3 method for class 'data.table'
add_parent_interval(x, id = "id", start = "start", end = "end", ...)

## S3 method for class 'tbl_df'
add_parent_interval(x, id = "id", start = "start", end = "end", ...)

## S3 method for class 'data.frame'
add_parent_interval(x, id = "id", start = "start", end = "end", ...)
```

### Arguments

x	R object.
...	Not currently used.
id	[character] Variable in x representing the id associated with an episode.
start	[character] Variable in x representing the start of the episode. Must refer to a variable that is either class <Date> or <POSIXct>.
end	[character] Variable in x representing the start of the episode. Must refer to a variable that is the same class as start.

### Value

The input data with additional columns for the corresponding parent interval (split across id values).

Additional columns will be labelled '.parent\_start', '.parent\_end' and '.interval\_number' where the interval number is in order of occurrence of the corresponding parent interval.

The returned object will be of the same class as the input x (i.e. a data.frame, data.table or tibble).

**Examples**

```

dat <- data.frame(
  id = c(1, 1, 2, 2, 2, 1),
  start = as.Date(c(
    "2020-01-01", "2020-01-03", "2020-04-01",
    "2020-04-15", "2020-04-17", "2020-05-01"
  )),
  end = as.Date(c(
    "2020-01-10", "2020-01-10", "2020-04-30",
    "2020-04-16", "2020-04-19", "2020-10-01"
  ))
)

add_parent_interval(dat)

```

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merge_episodes	<i>Merge overlapping episodes</i>
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**Description**

merge\_episodes() combines overlapping episodes in to a minimal spanning interval split by individual identifier. Methods are provided for data.frame like objects.

**Usage**

```

merge_episodes(x, ...)

## Default S3 method:
merge_episodes(x, ...)

## S3 method for class 'data.table'
merge_episodes(x, id = "id", start = "start", end = "end", ...)

## S3 method for class 'tbl_df'
merge_episodes(x, id = "id", start = "start", end = "end", ...)

## S3 method for class 'data.frame'
merge_episodes(x, id = "id", start = "start", end = "end", ...)

```

**Arguments**

x	R object.
...	Not currently used.
id	[character] Variable in x representing the id associated with the episode.

start	[character] Variable in x representing the start of the episode. Must refer to a variable that is either class <Date> or <POSIXct>.
end	[character] Variable in x representing the start of the episode. Must refer to a variable that is the same class as start.

**Value**

The resulting combined episode intervals split by id and ordered by interval number.

The returned object will be of the same class as the input x (i.e. a data.frame, data.table or tibble).

**Examples**

```
dat <- data.frame(  
  id = c(1, 1, 2, 2, 2, 1),  
  start = as.Date(c(  
    "2020-01-01", "2020-01-03", "2020-04-01",  
    "2020-04-15", "2020-04-17", "2020-05-01"  
  )),  
  end = as.Date(c(  
    "2020-01-10", "2020-01-10", "2020-04-30",  
    "2020-04-16", "2020-04-19", "2020-10-01"  
  ))  
)  
  
merge_episodes(dat)
```

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