

# Package ‘simbootcamp’

May 3, 2021

**Title** Simulate a simple clinical trial

**Version** 0.0.0.9000

**Description** Simulate a simple clinical trial.

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**Encoding** UTF-8

**LazyData** true

**Roxygen** list(markdown = TRUE)

**RoxygenNote** 7.1.1

## R topics documented:

run_trial . . . . .	1
z_test . . . . .	2

<b>Index</b>	<b>3</b>
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run_trial	<i>run_trial</i>
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## Description

simulation function that calculates the power and type 1 error of a particular set of assumptions (sample sizes, means, standard deviations).

## Usage

```
run_trial(  
  n,  
  mean_x,  
  mean_y,  
  sd_x,  
  sd_y,  
  test,  
  alpha = 0.05,  
  n_sim,  
  sim_alpha = TRUE  
)
```

**Arguments**

n	sample sizes in both groups (assumed to be equal)
mean_x, mean_y	means of both groups
sd_x, sd_y	standard deviations of both groups
test	type of test: "t.test", "wilcox.test" or "z.test"
alpha	significance level (default is 0.05)
n_sim	number of simulation repetitions.
sim_alpha	logical: whether the type 1 error must be simulated (default is TRUE)

**Value**

List with power and type 1 error

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<code>z_test</code>	<i>z_test</i>
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**Description**

Two-Sample z-test for Comparing Two Means

**Usage**

```
z_test(x, y, sd = 1, delta = 0)
```

**Arguments**

x, y	vectors of observations
sd	an assumed common standard deviation
delta	the mean difference corresponding to the null hypothesis

**Value**

List with z-statistics and p-value

# Index

run\_trial, [1](#)

z\_test, [2](#)