

# Package ‘dmutate’

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**Type** Package

**Title** Mutate Data Frames with Random Variates

**Version** 0.1.2

**Imports** dplyr (>= 0.5.0), MASS

**Depends** methods

**Suggests** testthat

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**Description** Work within the 'dplyr' workflow to add random variates to your data frame. Variates can be added at any level of an existing column. Also, bounds can be specified for simulated variates.

**URL** <https://github.com/kylebmetrum/dmutate>

**BugReports** <https://github.com/kylebmetrum/dmutate/issues>

**License** GPL (>= 2)

**LazyData** TRUE

**RoxygenNote** 6.0.1

**NeedsCompilation** no

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**Repository** CRAN

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covset	<i>Covobj and covset objects.</i>
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### Description

Covobj and covset objects.

Create a set of covariates.

### Usage

```
new_covobj(x, envir = parent.frame(), ...)
```

```
## S3 method for class 'covobj'
```

```
print(x, ...)
```

```
## S4 method for signature 'covobj'
```

```
as.list(x, ...)
```

```
## S4 method for signature 'covset'
```

```
as.list(x, ...)
```

```
## S3 method for class 'covset'
```

```
print(x, ...)
```

```
covset(..., envir = parent.frame())
```

```
rvset(...)
```

```
as.covset(x)
```

### Arguments

x	a formula; may be quoted
envir	for formulae
...	formulae to use for the covset

### Details

rvset is an alias for covset.

### Examples

```
obj <- new_covobj(Y[0,80] ~ rnorm(20,50))
```

```
obj
```

```
as.list(obj)

a <- Y ~ runif(0,1)
b <- Z ~ rbeta(1,1)

set <- covset(a,b)

set

as.list(set)
```

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dmutate	<i>mutate a data frame, adding random variables.</i>
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### Description

mutate a data frame, adding random variables.

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mutate_random	<i>Add random variates to a data frame.</i>
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### Description

Add random variates to a data frame.

### Usage

```
mutate_random(data, input, ...)
```

## S4 method for signature 'data.frame,formula'

```
mutate_random(data, input, ...)
```

## S4 method for signature 'data.frame,character'

```
mutate_random(data, input,
  envir = parent.frame(), ...)
```

## S4 method for signature 'data.frame,list'

```
mutate_random(data, input, ...)
```

## S4 method for signature 'data.frame,covset'

```
mutate_random(data, input, ...)
```

## S4 method for signature 'data.frame,covobj'

```
mutate_random(data, input,
  envir = parent.frame(), ...)
```

**Arguments**

data	the data.frame to mutate
input	an unquoted R formula; see details
...	additional inputs
envir	environment for object lookup

**Examples**

```
data <- data.frame(ID=1:10, GROUP = sample(c(1,2,3),10,replace=TRUE))

mutate_random(data, AGE[40,90] ~ rnorm(55,50))
mutate_random(data, RE ~ rbeta(1,1) | GROUP)

e <- list(lower=40,upper=140,mu=100,sd=100)

egfr <- covset(EGFR[lower,upper] ~ rnorm(mu,sd))

mutate_random(data,egfr,envir=e)
```

---

rbinomial

*Simulate from binomial distribution.*


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**Description**

Wrapper for [rbinom](#) with trial size of 1.

**Usage**

```
rbinomial(n, p, ...)
```

**Arguments**

n	number of variates
p	probability of success
...	passed along as appropriate

**Details**

The size of each trial is always 1.

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rmvnorm                      *Simulate from multivariate normal distribution.*

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**Description**

Simulate from multivariate normal distribution.

**Usage**

```
rmvnorm(n, mu, Sigma)
```

```
r1mvnorm(n, ...)
```

```
rmassnorm(n, ...)
```

```
r1massnorm(n, ...)
```

**Arguments**

n	number of variates
mu	vector of means
Sigma	variance-covariance matrix with number of columns equal to length of mu
...	arguments passed to rmvnorm

**Details**

r1mvnorm is a multivariate log normal.

rmassnorm and r1massnorm simulate the multivariate normal using the MASS package.

**Value**

Returns a matrix of variates with number of rows equal to n and number of columns equal to length of mu.

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