**vtree** cheatsheet

**Syntax:** summary=" varspec format "

varspec variable specification format text and codes

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| --- | --- |
| Code | Result |
| %mean% | mean |
| %SD% | standard deviation |
| %sum% | sum |
| %min% | minimum |
| %max% | maximum |
| %pX% | Xth percentile |
| %median% | median, i.e. p50 |
| %IQR% | IQR, i.e. p25, p75 |
| %npct% | frequency and percentage |
| %pct% | just percentage |
| %list% | comma-separated list of values |
| %listlines% | individual values on separate lines |
| %mv% | the number of missing values |
| %nonmv% | the number of non-missing values |

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| --- | --- |
| Code | Summary information restricted to: |
| %noroot% | all nodes *except* the root |
| %leafonly% | leaf nodes |
| %var=*v*% | nodes of variable *v* |
| %node=*n*% | nodes named *n* |

|  |  |
| --- | --- |
| Variable specifications |  |
| variable=value | all nodes *except* the root |
| variable>value | leaf nodes |
| variable<value | nodes of variable *v* |

summary parameter

**Add text to nodes**

vtree(FakeData,"Group Category",sameline=TRUE,

text=list(Category=c(triple="\n\*not verified\*")))

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| --- | --- |
| Code | Meaning |
| \n | Line break |
| \*...\* | Italics |
| \*\*...\*\* | Bold |
| ^...^ | Superscript |
| ~...~ | Subscript |
| %%red ...%% | Make text red (or another color) |

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| Text in a specific node (“targeted text”) |
| ttext=list(Group="A",Severity="Moderate",text="hi") |

Text

Basics

**Draw a basic variable tree**

vtree(FakeData,"Severity Sex")

**Prune single and double and their descendants**

vtree(FakeData,"Category Group",sameline=TRUE,

**prune**=list(Category=c("single","double")))

**Prune nodes below single and double**

vtree(FakeData,"Category Group",sameline=TRUE,

**prunebelow**=list(Category=c("single","double")))

**Only keep single and double and their descendants**

vtree(FakeData,"Category Group",sameline=TRUE,

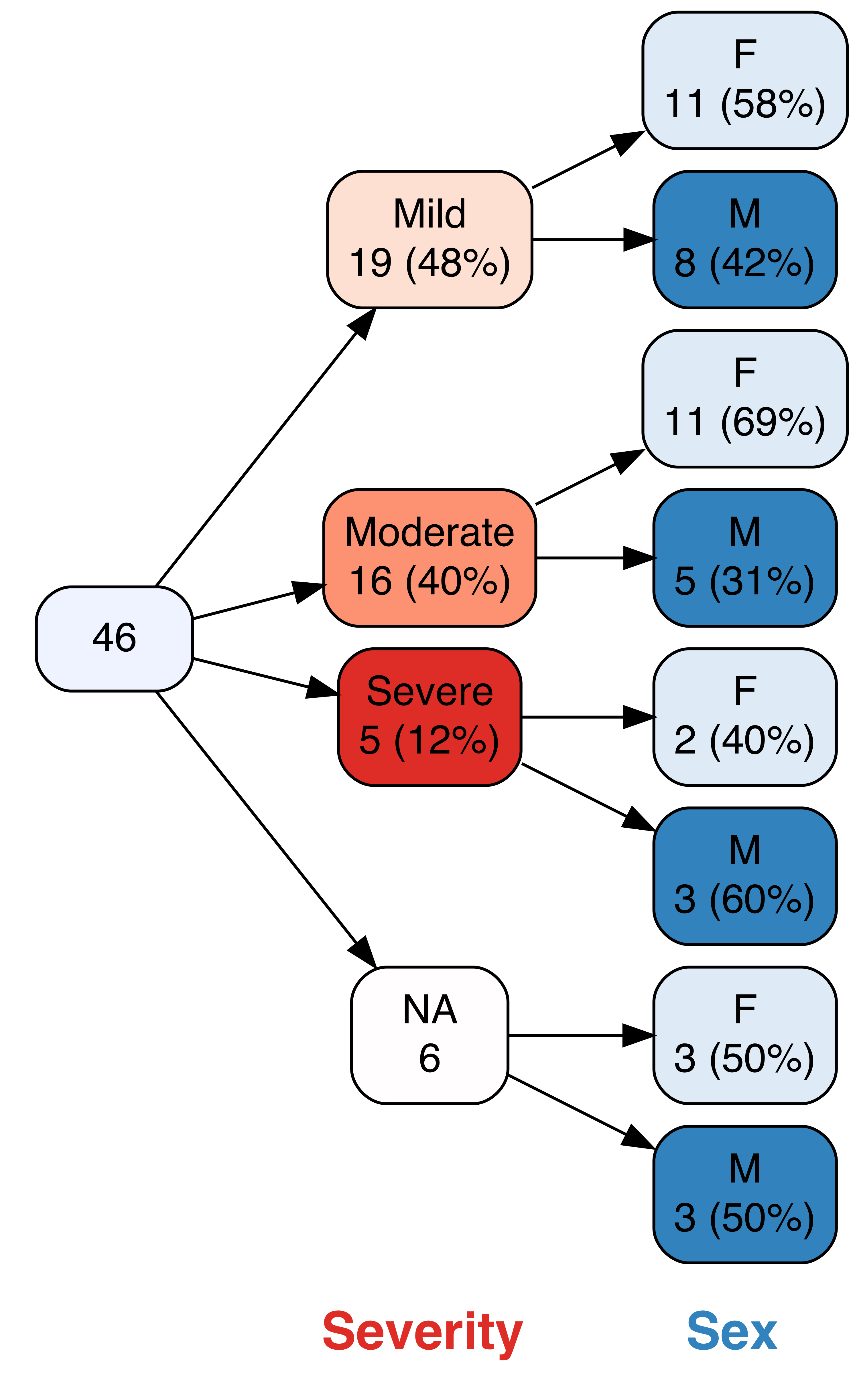
**keep**=list(Category=c("single","double")))

**Only include descendants of single and double**

vtree(FakeData,"Category Group",sameline=TRUE,

**follow**=list(Category=c("single","double")))

Pruning

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Labels

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| Parameter |
| Change variable labels |
| labelvar=c(  Severity="New label for Severity") |
| Change node labels for a variable |
| labelnode=list(MyVar=  c(New="Old",New2="Old2")) |
| Change a specific node label |
| tlabelnode=list(  c(Group="A",Sex="F",label="girl")) |
| Font size (points) for variable names |
| varnamepointsize=15 |
| Specify an optional label for the root node |
| title="All patients" |
| Show node labels? |
| shownodelabels=TRUE |
| Show variable names? |
| showvarnames=TRUE |

n pct Severity Sex

2 4 Severe F

3 7 <NA> F

3 7 <NA> M

3 7 Severe M

5 11 Moderate M

8 17 Mild M

11 24 Mild F

11 24 Moderate F

```{r, result="asis"}

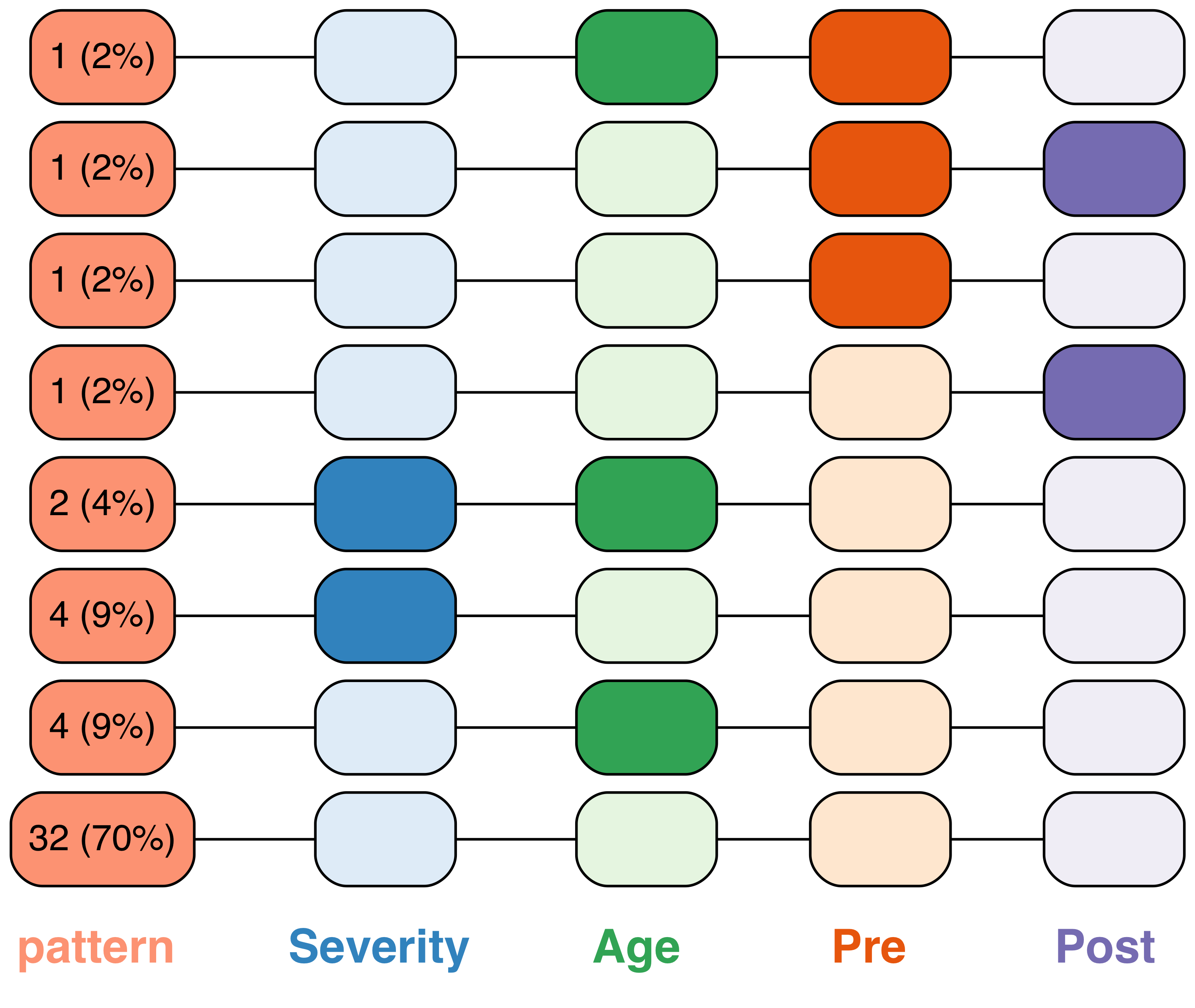
cat(vtree(FakeData,"Group Category"))

```

or

`r vtree(FakeData,"Group Category")`

R Markdown



|  |  |
| --- | --- |
| vtree parameters | Effect |
| pattern=TRUE | Generate a pattern tree |
| Venn=TRUE | Use Venn settings for indicator variables |
| ptable=TRUE | Generate a pattern table |

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| VennTable function with markdown formatting |
| VennTable(vtree(FakeData,"Ind1 Ind2",ptable=TRUE),markdown=TRUE) |

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| converting missing values to indicator variable with check.is.na |
| vtree(FakeData,"Ind1 Ind2",check.is.na=TRUE) |

Pattern trees and tables

CC by Nick Barrowman <https://creativecommons.org/licenses/by/4.0/> **•** Learn more at <https://github.com/nbarrowman/vtree/>  **•** package version 2.0.0 available on CRAN **•** updated June 1, 2019

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| --- | --- |
| Modifier | Effect |
| prefix is.na: | is.na(variable) |
| prefix stem: | all REDCap variables with stem |
| prefix tri: | trichotomize in each node |
| variable=*x* | dichotomize at *x* |
| variable<*x* | dichotomize below x |
| variable>*x* | dichotomize above *x* |

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| --- | --- |
| **Parameter** | **Effect** |
| prune | remove all specified nodes |
| prunebelow | remove all descendants of the specified nodes |
| keep | retain only the specified nodes |
| follow | retain descendants of only the specified nodes |

Variable specification