Package 'agseDesign'

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Type Package

Title Evaluating Operating Characteristics for Adaptive Group-Sequential Design with Population Enrichment

Version 0.0.1

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Description Evaluates Operating Characteristics for Adaptive Group-Sequential Design with Population Enrichment in Phase 3 Randomized Controlled Trials with Co-primary Endpoints

License GPL (>= 2)

LazyData true

RoxygenNote 5.0.1

R topics documented:

`operatingChar` *Evaluates Operating Characteristics for Adaptive Group-Sequential Design*

Description

Evaluates Operating Characteristics for Adaptive Group-Sequential Design with Population Enrichment in Phase 3 Randomized Controlled Trials with Co-primary Endpoints

Usage

```
operatingChar(x)
```

Arguments

alpha	Type 1 error rate
information.fraction	Information fraction
th1	theta1
th2	theta2
f1	Group 1 proportion

Value

Stage1.OC	Stage 1 operating charactistics
Stage2.OC	Stage 2 operating charactistics
Overall.OC	Overall operating charactistics

Author(s)

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Examples

```
library(agseDesign)
set.seed(123)
# Evaluating operating characteristics for theta = (0,0,0,0) scenario
d_0_0_0_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(0,0),
                           th2=c(0,0))
d_0_0_0_0
## Not run:
# Evaluating operating characteristics for theta = (0,0,1,0) scenario
d_0_0_1_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(0,0),
                           th2=c(1,0))
d_0_0_1_0

# Evaluating operating characteristics for theta = (0,0,0,1) scenario
d_0_0_0_1 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(0,0),
                           th2=c(0,1))
d_0_0_0_1

# Evaluating operating characteristics for theta = (1,0,0,0) scenario
d_1_0_0_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,0),
                           th2=c(0,0))
d_1_0_0_0
```

```
# Evaluating operating characteristics for theta = (0,1,0,0) scenario
d_0_1_0_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(0,1),
                           th2=c(0,0))
d_0_1_0_0


# Evaluating operating characteristics for theta = (1,1,0,0) scenario
d_1_1_0_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,1),
                           th2=c(0,0))
d_1_1_0_0


# Evaluating operating characteristics for theta = (1,1,1,0) scenario
d_1_1_1_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,1),
                           th2=c(1,0))
d_1_1_1_0

# Evaluating operating characteristics for theta = (1,1,0,1) scenario
d_1_1_0_1 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,1),
                           th2=c(0,1))
d_1_1_0_1


# Evaluating operating characteristics for theta = (1,0,1,0) scenario
d_1_0_1_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,0),
                           th2=c(1,0))
d_1_0_1_0


# Evaluating operating characteristics for theta = (1,1,1,1) scenario
d_1_1_1_1 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
                           th1=c(1,1),
                           th2=c(1,1))
d_1_1_1_1

# Evaluating operating characteristics for theta = (2,2,0,0) scenario
d_2_2_0_0 <- operatingChar(alpha=0.025,
                           information.fraction=0.5,
                           f1=0.75,
```

```
                          th1=c(2,2),
                          th2=c(0,0))
d_2_2_0_0



# Evaluating operating characteristics for theta = (2,2,1,0) scenario
d_2_2_0_1 <- operatingChar(alpha=0.025,
                          information.fraction=0.5,
                          f1=0.75,
                          th1=c(2,2),
                          th2=c(0,1))
d_2_2_0_1



# Evaluating operating characteristics for theta = (2,2,1,0) scenario
d_2_2_1_0 <- operatingChar(alpha=0.025,
                          information.fraction=0.5,
                          f1=0.75,
                          th1=c(2,2),
                          th2=c(1,0))
d_2_2_1_0


options(scipen=999)
manuscriptTable2 <- data.frame(rbind(
c(d_0_0_0_0$effect.size, round(d_0_0_0_0$Overall.OC,4)),
c(d_0_0_1_0$effect.size, round(d_0_0_1_0$Overall.OC,4)),
c(d_0_0_0_1$effect.size, round(d_0_0_0_1$Overall.OC,4)),
c(d_1_0_0_0$effect.size, round(d_1_0_0_0$Overall.OC,4)),
c(d_0_1_0_0$effect.size, round(d_0_1_0_0$Overall.OC,4)),
c(d_1_1_0_0$effect.size, round(d_1_1_0_0$Overall.OC,4)),
c(d_1_1_1_0$effect.size, round(d_1_1_1_0$Overall.OC,4)),
c(d_1_1_0_1$effect.size, round(d_1_1_0_1$Overall.OC,4)),
c(d_1_0_1_0$effect.size, round(d_1_0_1_0$Overall.OC,4)),
c(d_1_1_1_1$effect.size, round(d_1_1_1_1$Overall.OC,4)),
c(d_2_2_0_0$effect.size, round(d_2_2_0_0$Overall.OC,4)),
c(d_2_2_1_0$effect.size, round(d_2_2_1_0$Overall.OC,4)),
c(d_2_2_0_1$effect.size, round(d_2_2_0_1$Overall.OC,4))))


## End(Not run)
```

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