

Package: PTwins (via r-universe)

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Type Package

Title Percentile Estimation of Fetal Weight for Twins by Chorionicity

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Description Package to Percentile estimation of fetal weight for twins by chorionicity (dichorionic-diamniotic or monochorionic-diamniotic).

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 PTwins

Percentile Estimation of Fetal Weight for Twins by Chorionicity

Description

The PTwins function estimates the fetus weight percentile using a multilevel linear model developed from a Spanish twin cohort.

Usage

```
PTwins(weight, week, day=3, dichorionic=TRUE)
```

Arguments

weight	The fetus weight estimated by ultrasound at a gestational age (weeks) using Hadlock formula: $\log_{10}(\text{FW}) = 1.3596 - 0.00386(\text{AC}) \times (\text{FL}) + 0.0064(\text{HC}) + 0.0006(\text{BPD}) \times (\text{AC}) + 0.0424(\text{AC}) + 0.174(\text{FL})$ FW: fetal weight, AC: abdominal circumference, FL: femur length, HC: head circumference, BPD: biparital diameter
week	The gestational age in weeks for which the Fetus weight were estimated
day	The exact day in the gestational week at which the fetus weight were estimated. For the percentile calculation, if we choose for example: week=23, day=2, this is equivalent to 163 days of GA
dichorionic	This parameter indicates if the fetus is dichorionic-diamniotic (dichorionic=TRUE) or monochorionic-monoamniotic (dichorionic=FALSE)

Details

The inputs weight, week, day or dichorionic can be a number or a vector to include several cases

Value

The returned fit object of PTwins contains the following components.

Percentile	Percentile of the fetus weight
weight	fetus weight
GA	Gestational age in exact weeks

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Examples

```
#Percentile estimation of a dichorionic-diamniotic fetus of 2300 grams
#of weight estimated at the 22nd week (+2 days) of gestational age.

PTwins(weight=2300,week=22,day=2,dichorionic=TRUE)

#Percentile estimation of a monochorionic-diamniotic fetus of 2300 grams
#of weight estimated at the 22nd week (+2 days) of gestational age.

PTwins(weight=2300,week=22,day=2,dichorionic=FALSE)

#Percentile estimation of a dataframe that includes 10 cases

WEIGHT<-round(rnorm(10,2100,125),digits=0)
WEEK<-sample(seq(18,36),10)
DAY<-sample(seq(0,7),10,replace=TRUE)
dichorionic<-sample(c("TRUE","FALSE"),10,replace=TRUE)
DT<-data.frame(WEIGHT,WEEK,DAY,dichorionic)

PTwins(weight=DT$WEIGHT,week=DT$WEEK,day=DT$DAY,dichorionic=DT$dichorionic)
```

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