

ALLOMETRIC SCALING WORKSHEET

To calculate the Universal MEC dose from published dosages in the literature

REQUIRED DATA

Drug: *Cisapride (Indication - GI stasis or ileus)*

Source: *PDR Human pediatric dose only one available y*

Model Animal *Human child* Body Weight (kg) *20kg* Dose *0.2 mg/kg 3-4 times daily*

Model Animal MEC = $K \times BW_{\text{kg}}^{0.75} = 662$

Single Dose *4 mg*
(mg/kg x kg)

UNIVERSAL MEC DOSE CALCULATION

Divide known single dose (mg) by Model Animal MEC

UNIVERSAL MEC DOSE = *0.006*

FREQUENCY COEFFICIENT CALCULATION

Divide frequency (per 24h) by [Model Animal MEC/Bodyweight(kg)]

FREQUENCY COEFFICIENT = *0.1*

To calculate Patient's dose:

- 1) Multiply patient's MEC by Universal MEC dose = mg/treatment
- 2) Multiply patient's SMEC (MEC/body weight in kg) by Frequency coefficient = # times/day