

# ALLOMETRIC SCALING WORKSHEET

## REQUIRED DATA

Drug: *Amoxicillin*

Source: *Plumb*

Model Animal *Dog*    Body Weight (kg) *20 kg*                      Dose *22 mg/kg 2 x daily*

Model Animal MEC =  $K \times BW_{kg}^{0.75} = 662$                       Single Dose                      *440 mg*  
(mg/kg x kg)

## UNIVERSAL MEC DOSE CALCULATION

Divide known single dose (mg) by Model Animal MEC

UNIVERSAL MEC DOSE = *0.665*

## FREQUENCY COEFFICIENT CALCULATION

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

FREQUENCY COEFFICIENT = *0.06*

### To calculate a patient's dose:

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