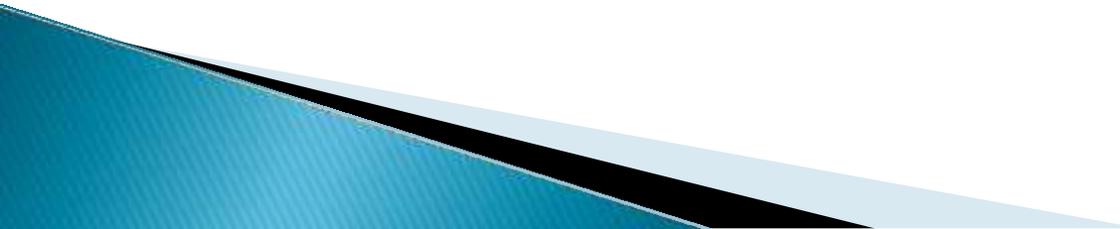


Calculation of Doses

- ▶ The dose of a drug given in the pharmacopoeia represents the average max. quantity of drugs which can be administered to an adult orally within 24 hrs.
 - ▶ The doses are also calculated in proportionate to age, body weight & surface area of the patient.
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Cont..

▶ **Dose proportionate to age:** There are number of methods by which the dose for a child can be calculated from the adult dose

1. Young's formula
2. Dilling's Formula
3. Fried's formula
4. Cowling's formula

1. **Young's formula** : This formula used for calculating the dose for children's under 12 years of age.

Age in years

Dose for the child = ----- X Adult dose

Age in years + 12

Cont..

2. Dilling's formula: This formula is used for calculating the doses for children in between 4 to 20 years. This formula is considered better because it is easier & quick to calculate the dose.

Age in years

Dose for the child = ----- x Adult dose

20



Cont..

3. **Fried's Formula** : This formula is used for calculating of dose for infants up to 2 years.

$$\text{Dose for infant's} = \frac{\text{Age in months}}{150} \times \text{Adult dose}$$

Cont..

4. Cowling's formula:

Age at next birthday (in years)

Dose for child= -----x Adult dose

24

- ▶ **Dose proportionate to body weight:** Clark's formula used to calculate the dose on body weight.

Childs weight in Kg

Dose for the child = -----x Adult dose

70

- ▶ **Dose proportionate to surface area** : In this method dose is calculated accordingly to surface area it's the more satisfactory & appropriate method than based on age method.

$$\text{of adult dose} = \frac{\text{Surface area of child}}{\text{Surface area of adult or}} \times 100$$

- ▶ **Catzel's formula:**

$$\text{Dose for patient} = \frac{\text{Surface area of patient in } M^2}{1.73 M^2} \times \text{Adult dose}$$

where, $1.73 M^2 = \text{Average adult surface area}$