



DOSE CALCULATION

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1. Prescribed Dose x amount of dilution

Dose in Hand



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A 2ml vial of amikacin has 150mg dose . The physician Has prescribed 85 dose to 1 yr old child. How many ml of amikacin injection you will administer to child

Prescribed dose= 85 mg

Dose in hand= 150 mg

Total vol= 2ml

$85 \times 2 = 1.1\text{ml}$

150



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Gentamycin vial 2ml vial

Dose in vial = 125mg/ml ($125 \times 2 = 250$)

Doctor has advised for 150 mg

How much ml ??

150

-----x2

250x



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500mg =5ml , 1 gm =10ml

Monocef (1gm) =1000mg in powder form

Prescription= 750 mg

Amount of dilution=10 ml

How much ml?

750x 10= 7.5 ml

1000

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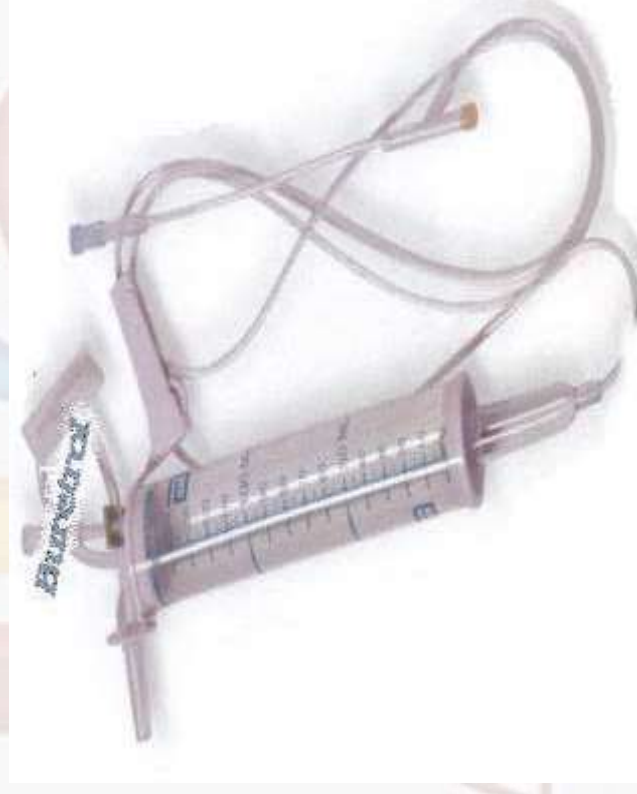
Formula to calculate IV Flow rate

Vol. of iv fluid to be infused X DF

Time in Minutes

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Burette Administration Set



- Drop factors= no of drops/ ml

Drop factor

---Micro iv set/ peds Iv set = 60 DF= 60 drops/ml

---- Adult IV SET/ Macro iv set= 20 DF =20 drops/ml

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Q1. 500 ml RL has to be infused 6 hrly to the 18yrs of child . Calculate drops/min.

Total volume (ml) of fluid to be infused x DF

Time (min)

$$500 \times 20$$

$$----- = 27.7 = 28 \text{ DROPS / min}$$

$$6 \times 60$$

Pediatric fluid requirement (ml/ day)

- For 0 - 10 kg = weight (kg) x 100 mL/kg/day (**wt x 100**)
- For 10-20 kg = 1000 mL + [weight (kg) x 50 ml/kg/day]
1000+ (wt x 50)
- For > 20 kg = 1500 mL + [weight (kg) x 20 ml/kg/day]
1500+ (wt x 20)

1) 0 -10 KG = (wt x 100)

> 10 – 20 kg = 1000+ (wt x 50)

> 20 kg = 1500+ (wt x 20)



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1. Wt 6.5 kg
2. wt 15.5 kg
3. wt 26.5 kg

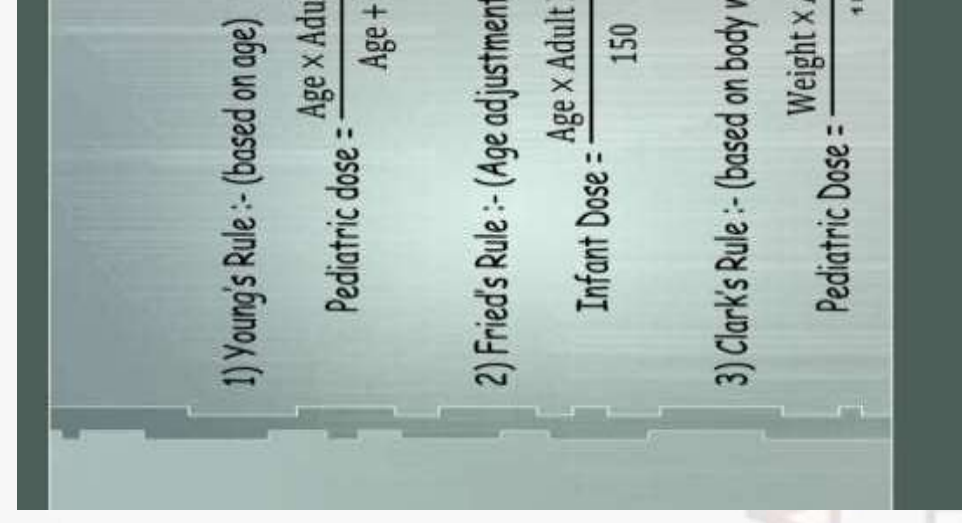


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Dose calculation formula

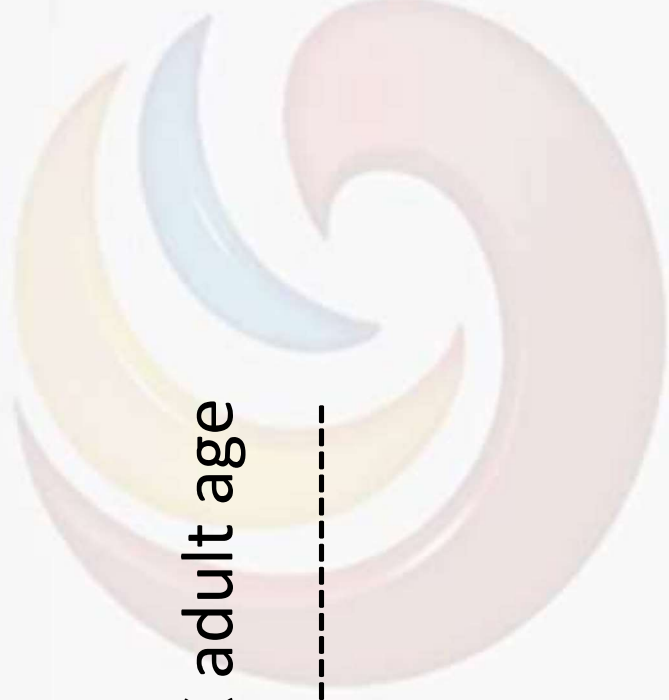
1. Young's rule :
paediatric dose: $\frac{\text{Age X Adult dose}}{\text{Age} + 12}$

2. Fried Rule : (for infant)
 $\frac{\text{Age X adult dose}}{150}$



3. Clark's Rule : weight X adult age

150



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Fried “s rule

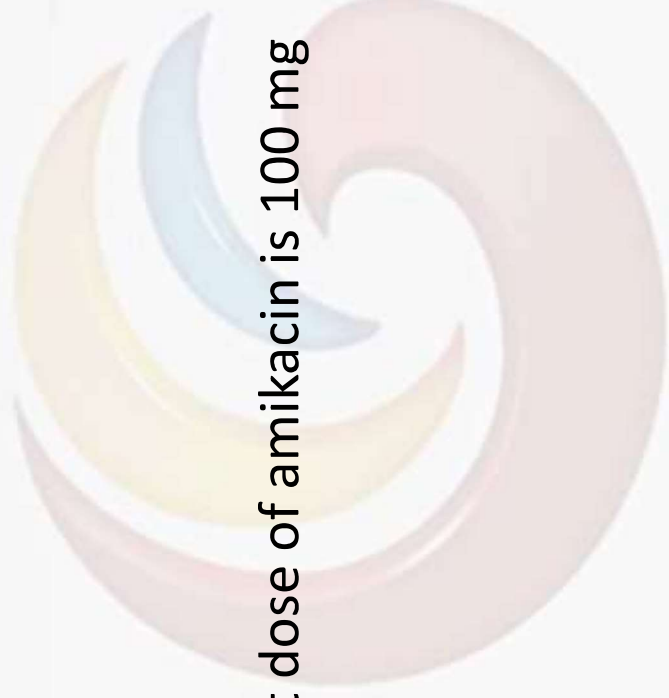
AGE OF CHILD is 4 month Adult dose of amikacin is 100 mg

Peds dose??

4

----- x 100 = 2.6 mg

150



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Age of child = 3 yrs
Adult dose 250 mg of amikacin
Peds dos??

$$\begin{aligned} 3 & \text{ ---- } \times 250 & 750/15 = 50 \text{ mg} \\ 3+12 & \\ 3 & \text{ --- } \times 250 \\ & 15 \end{aligned}$$

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1 kg = 2.2 lbs (pound)

5 kg = $5 \times 2.2 =$ wt in pound = 11 pound

weight of baby is 6.5 kg , adult dose of amikacin is 250 mg

Ped dose?

$6.5 \times 2.2 = 14.3$ wt in lbs

14.3

----- $\times 250 = 23.8$ mg

150

REFERENCES

1. Meharban Singh, Drug doses in children, 3rd edition



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THANK YOU



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