

# DRUG CALCULATIONS

**NB: Most calculations were rounded up.**

## 2% Lidocaine

- Dose: 2 mg/Kg
- Concentration: 20 mg/mL
- Weight of Kid: 4 Kg

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 2 \text{ mg/Kg}}{20 \text{ mg/mL}}$$

$$\text{Volume} = 0.4 \text{ mL}$$

**NB:** This will be divide into 4 giving *0.1 mLs of Lidocaine per site*

## Combikel

- Dose: 10,000 IU/Kg
- Concentration: 200,000 IU/mL
- Weight of Kid: 4 Kg

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 10,000 \text{ IU/Kg}}{200,000 \text{ IU/mL}}$$

$$\text{Volume} = 0.2 \text{ mL}$$

## Toxic Dose of 2% Lidocaine

- Dose: 10 mg/Kg
- Concentration: 20 mg/mL
- Weight of Kid: 4 Kg

**NB:**  $\frac{1}{2}$  Toxic Dose was used

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 5 \text{ mg/Kg}}{20 \text{ mg/mL}}$$

$$\text{Volume} = 1 \text{ mL}$$

$\therefore$  Do **NOT** exceed 1 mL of Lidocaine

## 5% Flunixin

- Dose: 1.1 mg/Kg
- Concentration: 50 mg/mL
- Weight of Kid: 4 Kg

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 1.1 \text{ mg/Kg}}{50 \text{ mg/mL}}$$

$$\text{Volume} = 0.09 \text{ mL}$$

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## EMERGENCY DRUGS

### *Atropine*

- Dose: 0.04 mg/Kg
- Concentration: 0.54 mg/mL
- Weight of Kid: 4 Kg

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 0.04 \text{ mg/Kg}}{0.54 \text{ mg/mL}}$$

$$\text{Volume} = 0.3 \text{ mL}$$

### *Epinephrine*

- Dose: 0.02 mg/Kg
- Concentration: 1 mg/mL
- Weight of Kid: 4 Kg

$$\text{Volume} = \frac{\text{Weight} \times \text{Dose}}{\text{Concentration}}$$

$$\text{Volume} = \frac{4 \text{ Kg} \times 0.02 \text{ mg/Kg}}{1 \text{ mg/mL}}$$

$$\text{Volume} = 0.08 \text{ mL}$$

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