

- **Penicillin – Streptomycin:**

- Dose: 22,000 IU/kg
- Concentration: 200,000 IU/ml
- Administration: IM
- Dose calculated: $\frac{22,000 \frac{\text{IU}}{\text{kg}} \times 27.0 \text{ kg}}{200,000 \frac{\text{IU}}{\text{ml}}} = 2.97 \text{ ml} \cong 3 \text{ ml}$

- **Stresnil:**

- Dose: 1mg/kg
- Concentration: 40mg/ml
- Administration: IM
- Dose calculated: $\frac{1 \frac{\text{mg}}{\text{kg}} \times 27.0 \text{ kg}}{40 \frac{\text{mg}}{\text{ml}}} = 0.675 \text{ ml} \cong 0.67 \text{ ml}$

- **Flunixin:**

- Dose: 1.1 mg/kg
- Concentration: 50mg/ml
- Administration: IV
- Dose calculated: $\frac{1.1 \frac{\text{mg}}{\text{kg}} \times 27.0 \text{ kg}}{50 \frac{\text{mg}}{\text{ml}}} = 0.594 \text{ ml} \cong 0.59 \text{ ml}$

- **Xylazine + Ketamine:**

- Dose: 1ml/45kg
- Concentration: N/A (back up for Stresnil)
- Administration: IM
- Dose calculated: 1:1 (Xylazine = Ketamine)
 - 1ml = 45kg
 - $\therefore 27.0 \text{ kg (wt of pig)} = \frac{1 \text{ ml}}{45 \text{ kg}} \times 27.0 \text{ kg} = 0.6 \text{ ml}$
 - wrt 1:1 \therefore 0.3 ml of Xylazine & 0.3 ml of Ketamine

- **Thiopental: (Induction)**

- Dose: 10mg/kg
- Concentration: 5% $\therefore (5 \times 10) \text{mg/ml} = 50 \text{mg/ml}$
- Administration: IV
- Dose calculated:
$$\frac{10 \frac{\text{mg}}{\text{kg}} \times 27.0 \text{ kg}}{50 \frac{\text{mg}}{\text{ml}}} = 5.4 \text{ ml}$$

- **Diazepam + Ketamine:**

- Dose: 1mg/20lb (9.09kg)
- Concentration: (top up)
- Administration: IV (correct me if I'm wrong)
- Dose calculated: 0.25:1 (1/4 Diazepam = 1 Ketamine)
 - 1ml = 9.09kg
 - $\therefore 27.0 \text{ kg (wt of pig)} = \frac{1 \text{ ml}}{9.09 \text{ kg}} \times 27.0 \text{ kg} = 2.97 \text{ ml} \cong 3 \text{ ml}$
 - wrt 0.25:1 $\therefore \frac{1}{2} \text{ ml of Diazepam \& } 2 \frac{1}{2} \text{ ml of Ketamine}$

- **IV Fluid:**

- Dose: 10mg/kg/hr
- Concentration:
- Dose calculated:
$$\frac{10 \frac{\text{mL}}{\text{kg}} \times 27.0 \text{ kg}}{3600 \text{ s}} = 0.075 \text{ mL} \cong 0.08 \text{ mL/sec}$$
 - Drip rate: 0.08×20 (drip factor) = 1.6 = 2 drops/second
- Not given

- **Epinephrine:**

- Dose: 0.2 mg/kg
- Concentration: 1mg/ml
- Administration: IM
- Dose calculated:
$$\frac{0.2 \frac{\text{mg}}{\text{kg}} \times 27.0 \text{ kg}}{1 \frac{\text{mg}}{\text{ml}}} = 5.4 \text{ ml}$$
- Not given

- **Atropine:**

- Dose: 0.05 mg/ml
- Concentration: 0.54mg/ml
- Administration: IM
- Dose calculated: $\frac{0.05 \frac{mg}{kg} \times 27.0 kg}{0.54 \frac{mg}{ml}} = 2.5 ml$
- Not given