PHARMACY

Pharmacy layout
The RAVS pharmacy is divided into several sections:
- Dispensable medications: Located near recovery area
- Controlled drugs: Located in lock box at anesthesia table
- Emergency drugs: Located between induction tables facing surgery tables.
- Fluids and fluid administration supplies: Located in box under anesthesia table
- Vaccines: Stock stored in trailer refrigerator. Supply in use kept in cooler in receiving.

Dispensing Prescription Drugs
Animal drugs approved by the FDA are classified as either veterinary prescription (Rx) or over-the-counter (OTC) drugs. Products classified as veterinary Rx, are labeled "For use by or on the order of a licensed veterinarian". Prescription drugs must be used or prescribed only within the context of a valid veterinarian-client-patient relationship and appropriate records of all prescriptions issued must be maintained.

All prescriptions dispensed other than standard anti-parasitics must be approved by a veterinarian prior to being filled.

When dispensing medication for a patient, remember that the medication is only effective if the client is successful in administering it as prescribed. When possible, choose dosage schedules that minimize the number of treatments and duration while providing appropriate treatment (e.g. choose once or twice daily dosing instead of three times daily, etc).

Controlled Drugs
A controlled substance is defined by law as a substance with potential for physical addiction, psychological addiction and/or abuse. These drugs are labeled with a capital C followed by a Roman numeral, which denotes the drug's theoretical potential for abuse (Cl through CV). Controlled substances must be stored securely and a written record must be maintained describing when, how much and to whom the drug is dispensed.

All controlled drugs MUST be dispensed by a staff veterinarian or technician.

Prescription Information:
The prescription order should contain the following information and should be accurately recorded in the patient record:

Rx: Drug Name, Strength and Quantity
Sig: Dosage and Directions for use

Example: Rx: Ampicillin 500 mg #20
        Sig: 1 PO BID

The prescription label should include:
- Name, address and phone of the veterinarian-RAVS stamp provided at pharmacy table.
- Patient's name followed by last name of the client
- Date
- Name, strength and quantity of the drug
- Dosage and directions for use - fully written out in simple language
- Expiration date of drug

Doctor Fantabulous, DVM
Rural Area Veterinary Services
PO Box 1589 Felton, CA 95018 Phone: 831-216-8087

"Fluffy" Smith

Ampicillin 500 mg #20
Give 1 capsule by mouth every 12 hours

expires Jan '15
DOSAGE CALCULATIONS

Amount to administer = Weight x Dose x 1/ Strength of Drug

A. Units needed = weight x dose rate
Example: How many mg of Amoxicillin are needed for a 10 kg dog if the dose is 20 mg/kg?
mg needed = 10 kg x 20 mg/kg = 200 mg

B. Amount needed = dose / concentration
Example: How many mL of Amoxicillin are needed for the patient above?
The Amoxicillin available is in a 100-mg/mL concentration
mL needed = 200 mg / 100 mg/mL = 2 mL

IV DRIP RATE CALCULATIONS:
Anesthetists will be responsible for calculating fluid administration and drip rates for each patient using manual fluid administration sets

To calculate drip rates:
- Volume of fluid to be administered must be known value
- Time period for the volume of fluids must be known
- Fluid drip set "drops/ml" must be known

\[
\text{volume (ml)} \times \text{drop factor (gtt/ml)} \rightarrow \frac{60 \text{ sec}}{\text{min}} \rightarrow \frac{1 \text{ gtt}}{\text{every ___ sec}}
\]

OR

\[
\text{mls/hr} \div 60 \text{ (minutes in 1 hr)} = \frac{\text{mls}}{\text{min}} \rightarrow \frac{\text{mls}}{\text{min}} \times \text{drops/ml} = \text{drops per minute}
\]

Example:
Animal needs 1200 mL of fluids over the next 24 hrs, and you have a 15gtt/ml drip set

\[
\frac{1200 \text{ ml} \times 15 \text{ gtt/ml}}{1440 \text{ min}} = \frac{12.5 \text{ gtt}}{\text{min}} \rightarrow \frac{60 \text{ sec}}{\text{min}} = \frac{1 \text{ gtt/ every } 4.8 \text{ sec}}{12.5 \text{ gtt/ min}}
\]

OR

\[
50 \text{ ml/hr} \div 60 \text{ (seconds in 1 min)} = 0.83 \text{ ml/min} \rightarrow 0.83 \text{ ml/min} \times \text{drops/ml} = 12.45 \text{ drops per minute}
\]

\[
60 \text{ (seconds in 1 min)} \div 12.45 \text{ drops/min} = 1 \text{ drop every } 4.8 \text{ seconds}
\]

OR

\[
1200 \div 24 = \text{mL of fluids needed per hour (50mls/hr)}
50\text{mls/hr} \div \text{minutes in 1 hour (60)} = \frac{\text{mls}}{\text{min}} (0.83\text{ml/min})
0.83\text{ml/min} \times \text{drops/ml} = \text{drops per minute (12.45 drops/min)}
60 \text{ (number of seconds in 1 min)} \div 12.45 \text{ (drops/min)} = 1 \text{ drop every } (4.8) \text{ seconds}
\]