Given the following medications, Excenel and NuflorGold, please fill out the chart below with information from the label. Assume that you are giving these injections to a 1,200 lb. steer that is experiencing respiratory disease (5 points per box / 40 points total).

<table>
<thead>
<tr>
<th>Product</th>
<th>Content</th>
<th>Route</th>
<th>Dose / 100 lbs.</th>
<th>Withdrawal Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Excenel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. NuflorGold</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Routes: IM = intramuscular, SQ = subcutaneous, T = Topical, ID = intradermal, IN = intranasal, ET = ear tag

3. Indicate on the pictures where each product will be administered (10 points per product/20 points total).

4. For Excenel (5 points each / 15 points total):
   a. How many total mL should be injected to treat the animal?

   b. How many injection sites would it take to adhere to label directions?

   c. If today, February 24, 2017, was the last day of treatment, when can the animal go to slaughter?

5. For NuflorGold (5 points each / 15 points total):
   a. How many total mL should be injected to treat the animal?

   b. How many injection sites would it take to adhere to label directions?

   c. If today, February 24, 2017, was the last day of treatment, when can the animal go to slaughter?
6. Which of these two products could also be used to treat foot rot (5 points)?

7. If a product is labeled for intramuscular or subcutaneous administration routes, which is the preferred route (5 points)?
Excenel label information:

**Equivalent to 50MG PER ML CEFTIOfur**

For intramuscular injection in swine.

For intranasal and subcutaneous injection in cattle.

This product may be used in lactating dairy cattle.

Inject in calves to be processed for veal.

Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Federal law prohibits extra-label use of this drug in cattle and swine for disease prevention purposes, at unapproved doses, frequencies, durations, or routes of administration; and in unapproved major food producing species/production classes.

For Use in Animals Only

NADA 141-288, Approved by FDA

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**Residue Warnings**

Swine: When used according to label instructions, dosage, and route of administration, treated swine must not be slaughtered for 4 days following the last treatment. Use of dosages in excess of those indicated or by unapproved routes of administration may result in residues in edible tissues. Cattle: When used according to label instructions, dosage, and route of administration, treated cattle must not be slaughtered for 4 days following the last treatment. When used according to label instructions, dosage, and route of administration, milk discard time is not required. Use of dosages in excess of those indicated or by unapproved routes of administration, such as an intramuscular, may result in illegal residues in edible tissues and/or milk. A withdrawal period has not been established in pre-nursing calves. Do not use in calves to be processed for veal.

Store at controlled room temperature 2°C to 25°C (36°F to 77°F); excursions permitted 10°C to 40°C (50°F to 104°F). Protect from freezing. Shake well before using. Contents should be used within 45 days after the first dose is removed.

Each ml contains: Ceftiofur hydrochloride equivalent to 50 mg ceftiofur, 2.5 mg polyoxymylene benzyl ether sodium succinate (polysorbate 80), 0.5 mg water for injection in a carboxymethyl cellulose (MycroCell® 812) suspension.

Distributed by Zoetis Inc., Katonah, NY 10536

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For bovine respiratory disease and foot rot:

- Administer by intramuscular or subcutaneous administration at the dosage of 1 to 2 mL per 100 lbs. body weight (BW).
- Administer daily at 24-hour intervals for a total of three consecutive days. Additional treatments may be administered on days four and five for animals that do not show a satisfactory response (not recovered) after the initial three treatments.
- For BRD only, administer intramuscularly or subcutaneously 3 mL/100 lbs. BW every other day on days one and three (48-hour interval). Do not inject more than 15 mL per injection site.
- Selection of dosage level and regimen/duration should be based on an assessment by the herd veterinarian.

For acute postpartum metritis:

- Administer by intramuscular or subcutaneous administration at the dosage of 2 mL per 100 lbs. BW.
- Administer at 24-hour intervals for five consecutive days. Do not inject more than 15 mL per injection site.

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NuflorGold label information:

**Injection Solution, An Antimicrobial**

For subcutaneous use in beef and non-lactating dairy cattle only.

Not for use in females in cattle 6 months of age or older or in calves to be processed for veal.

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

NADA 141-288, Approved by FDA

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**Residue Warnings:** Animals intended for human consumption must not be slaughtered within 44 days of treatment. Do not use in female dairy cattle 20 months of age or older. Use of florfenicol in this class of cattle may cause milk residues. A withdrawal period has not been established in pre-nursing calves. Do not use in calves to be processed for veal.

**Storage Information:** Store between 2°C to 30°C (36°F to 86°F). Use within 28 days of first use. Refrigeration is not required. The solution is light yellow to straw colored. Color does not affect potency.

See Product Information insert for complete directions and warnings before using.

**Description:** Nuflor Gold® is an injectable solution of the synthetic antibiotic florfenicol. Each milliliter of Nuflor Gold® contains 300 mg of florfenicol, 300 mg of 2-pyrrolidone, and tiosalazine.