Veterinary Feed Directive Information
Focus and Scope

We’re here to...

- Gain insight into the rationale for these changes
- Identify potential challenges to implementation
- Discuss tools/resources necessary for successful execution
- Define best practices
- Identify and address any unanswered questions

Not to...

- Debate the validity of the rules
- Make changes to the rules
Veterinary-Patient-Client Relationship

• Veterinarian issuing a VFD is required to be licensed to practice veterinary medicine and operate in compliance with either:
  • State-defined VCPR – if VCPR defined by such State includes the key elements of a valid VCPR defined in § 530.3(i); or
    • engage with the client to assume responsibility for making clinical judgments about patient health;
    • have sufficient knowledge of the patient by virtue of patient examination and/or visits to the facility where patient is managed;
    • and provide for any necessary follow-up evaluation or care
  • Federally-defined VCPR - where no applicable or appropriate State VCPR requirements exist

Source: FDA presentation at Farm Foundation meeting
FDA VCPR Next Steps

• FDA is working with State regulatory authorities to verify whether that state has VCPR requirements in place that:
  • apply to the issuance of a VFD, and
  • include the key elements of the federally-defined VCPR

• FDA will provide an online list of such states at the time the final GFI #120 publishes
  • CVM intends to publish this list on its VFD website by October 1, 2015
  • This list will be updated periodically as FDA receives and verifies information from states if they change their VCPR definition or its applicability

Source: FDA presentation at Farm Foundation meeting
Public concern over the use of antimicrobials in food animal production is increasing.

- 48% feel uncomfortable about antibiotic use in animal production.
- 71% have “serious or some concerns” about conventional methods.
- 53% frequently wonder if the food they buy is safe.

Source: USFRA
History of Antibiotics in Livestock Production

1950s
FDA approves use of antibiotics for growth promotion in food animals

1969
Swann Committee report recommends only antibiotics with no\little disease treatment application be used in animal growth promotion

1970
FDA links use of SGPs to emergence of antibiotic-resistant bacteria

1972-74
Many European countries ban growth promotion use of medically important antibiotics

1980
Report by Institute of Medicine states resistance from AGPs is a “potential human health hazard”

1988
FDA issues “notices of opportunity for a hearing” to ban sub therapeutic use of penicillin and tetracyclines, but is never held due to congress

1990
1993
Approval of Feed and Water Medications as RX for VFD

1996
National Antimicrobial Resistance Monitoring System established

2000
2008
Manufacturers are required to report quantity of antimicrobial drugs sold or distributed to the FDA

2009
Strategies to Address Antimicrobial Resistance (STAAR) Act introduced in Congress

2013
Guidance Document #209, Draft Guidance #213, revised VFD rule proposed

2015
Final VFD rule update published

Sources: Center for Disease Dynamics, Economics & Policy, Natural Resource Defense Council
3 Components

• Guidances for Industry:
  • #209
  • #213

• Revised Veterinary Feed Directive
Two key principles outlined in Guidance #209

• Limit medically important antimicrobial drugs to therapeutic purposes (i.e., those uses considered necessary for ensuring animal health)

• Require veterinary oversight or consultation for such therapeutic uses in food-producing animals

Source: FDA presentation at Farm Foundation meeting
Guidance #213

• December 2016 - Target for drug sponsors to implement changes to use conditions of medically important antibiotics in food and water to:
  • Withdraw approved production uses
    • Such as “increased rate of weight gain” or “improved feed efficiency”
    • Such production uses will no longer be legal
  • Therapeutic uses will be retained
    • treatment, control, and prevention indications
    • Required veterinary oversight

Source: FDA presentation at Farm Foundation meeting
Guidance #213: Veterinary Oversight

• Key principle is to include veterinarian in decision-making process
  • Does not require direct veterinarian involvement in drug administration
  • Does require use be authorized by licensed veterinarian

• This means changing marketing status from OTC to Rx or VFD
  • Water soluble products to Rx – “medicated water”
  • Products used in or on feed to VFD – “medicated feed”

Source: FDA presentation at Farm Foundation meeting
Guidance #213: Scope

• Only affects antibiotics that are:
  • “Medically important”
  • Administered in feed or drinking water
    • Other dosage forms (e.g., injectable, bolus) not affected

Source: FDA presentation at Farm Foundation meeting
# Affected feed-use antibiotics

<table>
<thead>
<tr>
<th>Antimicrobial Class</th>
<th>Specific drugs approved for use in feed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminoglycosides</td>
<td>Apramycin, Hygromycin B, Neomycin, Streptomycin</td>
</tr>
<tr>
<td>Diaminopyrimidines</td>
<td>Ormetoprim</td>
</tr>
<tr>
<td>Lincosamides</td>
<td>Lincomycin</td>
</tr>
<tr>
<td>Macrolides</td>
<td>Erythromycin, Oleandomycin, Tylosin</td>
</tr>
<tr>
<td>Penicillins</td>
<td>Penicillin</td>
</tr>
<tr>
<td>Streptogramins</td>
<td>Virginiamycin</td>
</tr>
<tr>
<td>Sulfas</td>
<td>Sulfadimethoxine, Sulfamerazine, Sulfamethazine, Sulfafuinoxaline</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>Chlortetracycline, Oxytetracycline</td>
</tr>
</tbody>
</table>

Source: FDA presentation at Farm Foundation meeting
**Affected water-use antibiotics**

<table>
<thead>
<tr>
<th>Antimicrobial Class</th>
<th>Specific drugs approved for use in water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminoglycosides</td>
<td>Apramycin, Gentamicin, Neomycin, Spectinomycin, Streptomycin</td>
</tr>
<tr>
<td>Lincosamides</td>
<td>Lincomycin</td>
</tr>
<tr>
<td>Macrolides</td>
<td>Carbomycin, Erythromycin, <strong>Tylosin</strong></td>
</tr>
<tr>
<td>Penicillins</td>
<td>Penicillin</td>
</tr>
<tr>
<td>Sulfas</td>
<td>Sulfachloropyrazine, Sulfachlorpyridazine, Sulfadimethoxine, Sulfamerazine, Sulfamethazine, Sulfafquinoxaline</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>Chlortetracycline, Oxytetracycline, Tetracycline</td>
</tr>
</tbody>
</table>

Source: FDA presentation at Farm Foundation meeting
Drugs not affected by Guidance #213

• Antibiotics
  • That are already VFD:
    • avilamycin, florfenicol, tilmicosin
  • That are not medically important:
    • Ionophores (monensin, lasalocid, etc.)
    • Bacitracin (BMD, bacitracin zinc)
    • Bambermycins

• Other drugs (that are not antibiotics), including:
  • Anthelmentics: Coumaphos, Fenbendazole, Ivermectin
  • Beta agonists: Ractopamine, Zilpaterol
  • Coccidiostats: Clopidol, Decoquinate, Diclazuril

Source: FDA presentation at Farm Foundation meeting
VFD Drug Definition

• VFD Drug:
  • A "VFD drug" is a drug intended for use in or on animal feed that is limited to use under the professional supervision of a licensed veterinarian

• Combination VFD Drug:
  • A "combination VFD drug" is an approved combination of new animal drugs intended for use in or on animal feed under the professional supervision of a licensed veterinarian, and at least one of the new animal drugs in the combination is a VFD drug.

Source: FDA Brochure – Producer Requirements
VFD Definition

• Veterinary Feed Directive:
  • A VFD is a written (nonverbal) statement issued by a licensed veterinarian in the course of the veterinarian’s professional practice that authorizes the use of a VFD drug or combination VFD drug in or on an animal feed. This written statement authorizes the client (the owner of the animal or animals or other caretaker) to obtain and use animal feed bearing or containing a VFD drug or combination VFD drug to treat the client’s animals only in accordance with the conditions for use approved, conditionally approved, or indexed by the FDA. A VFD is also referred to as a VFD order.

Source: FDA Brochure – Producer Requirements
VFD Timeline

• Changes intended to make process more efficient while continuing to provide public health protections

• VFD Final Rule
  • June 3, 2015 – VFD final rule published
  • October 1, 2015 – VFD final rule becomes effective for drugs that are already VFD status
  • December 2016 – Target for drug sponsors to implement changes to use conditions of products affected by GFI #213
  • January 1, 2017 – Target for all medically important antimicrobials for use in or on feed to require a VFD

Source: FDA presentation at Farm Foundation meeting
**Current VFD Drugs**

- Note: Only the drugs that are currently approved as VFD drugs will be affected by the VFD final regulation when it goes into effect on October 1, 2015.

<table>
<thead>
<tr>
<th>Currently Approved VFD Drugs</th>
<th>Approved for Use in the Following Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin</td>
<td>Swine – reduction of diarrhea – E. coli.</td>
</tr>
<tr>
<td>Florfenicol</td>
<td>Fish – control of mortality (various diseases by fish type)</td>
</tr>
<tr>
<td></td>
<td>Swine – control of SRD</td>
</tr>
<tr>
<td>Tilmicosin</td>
<td>Cattle – control of BRD</td>
</tr>
<tr>
<td></td>
<td>Swine – control of SRD</td>
</tr>
</tbody>
</table>

Source: FDA presentation at Farm Foundation meeting
Information **required** on a VFD form

- veterinarian’s name, address, and telephone number;
- client’s name, business or home address, and telephone number;
- premises at which the animals specified in the VFD are located;
- date of VFD issuance;
- expiration date of the VFD;
- name of the VFD drug(s);
- species and production class of animals to be fed the VFD feed;
- approximate number of animals to be fed the VFD feed by the expiration date of the VFD;
- indication for which the VFD is issued;
- level of VFD drug in the feed and duration of use;
- withdrawal time, special instructions, and cautionary statements necessary for use of the drug in conformance with the approval;
- number of reorders (refills) authorized, if permitted by the drug approval, conditional approval, or index listing;
- statement: “Use of feed containing this veterinary feed directive (VFD) drug in a manner other than as directed on the labeling (extralabel use), is not permitted”;
- an affirmation of intent for combination VFD drugs as described in 21 CFR 558.6(b)(6); and veterinarian’s electronic or written signature.

Source: FDA Brochure – Producer Requirements
Expiration Date and Duration of Use

• Expiration Date –
  • Specifies the period of time for which the VFD authorization is valid
  • A VFD feed should not be fed after the expiration date (i.e., after VFD authorization expires)
  • May be specified on the product label; if not – it cannot exceed 6 months after the date of issuance.
  • The veterinarian can use his or her medical judgment to determine whether a more limited period is warranted

• The Duration of Use –
  • A separate concept from the expiration date
  • The length of time that the animal feed containing the VFD drug is allowed to be fed to the animals
  • Established as part of the approval, conditional approval, or index listing process
  • If the VFD order will expire before completing the duration of use on the order, the client should contact his/her veterinarian to request a new VFD order

Source: FDA presentation at Farm Foundation meeting
Approximate Number of Animals

- VFD must include an approximate number of animals:
  - The potential number of animals of the species and production class identified on the VFD that will be fed the VFD feed or combination VFD feed manufactured according to the VFD at the specified premises by the expiration date of the VFD

- VFD will no longer be required to specify the amount of feed to be fed
  - Expectation is that feed mill will work with the client and veterinarian to determine an appropriate amount of feed to manufacture and distribute under the VFD based on the approximate number of animals, duration of use, and expiration date

Source: FDA presentation at Farm Foundation meeting
Producer Responsibilities

• Only feed animal feed bearing or containing a VFD drug or a combination VFD drug (a VFD feed or combination VFD feed) to animals based on a VFD issued by a licensed veterinarian;

• Not feed a VFD feed or combination VFD feed to animals after the expiration date on the VFD;

• Provide a copy of the VFD order to the feed distributor if the issuing veterinarian sends the distributor’s copy of the VFD through you, the client;

• Maintain a copy of the VFD order for a minimum of 2 years; and provide VFD orders for inspection and copying by FDA upon request.

Source: FDA Brochure – Producer Requirements
“Use as little as possible but as much as necessary.”

- Dr. Terry Coffey, Smithfield