FDA's New Efforts to Advance Antimicrobial Stewardship in Veterinary Settings

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Topics – FDA Activities

• Antimicrobial Resistance – Recent changes
  – Guidance 209/213
  – VFD regulation

• Antimicrobial Resistance – Next Steps
  – CVM’s 5-year plan
  – Goals and objectives
Antimicrobial Resistance

- Complex, multi-factorial issue
- All uses are drivers of resistance
  - One Health approach needed
- Goal: implement measures that address public health concern while assuring animal health needs are met
FDA’s Judicious Use Strategy

• Two key principles outlined in Guidance #209

• Limit use of medically important antimicrobial drugs in food-producing animals to those uses that:
  1. are considered necessary for assuring animal health and,
  2. that include veterinary oversight or consultation
Guidance #213: Overview

• **January 2017** - Target date to implement changes to use conditions of medically important antimicrobials in food and water
  – Voluntarily withdraw approved production uses
    • such as “increased rate of weight gain” or “improved feed efficiency”
    • preserve therapeutic uses
  – Change marketing status from OTC to VFD/Rx
Guidance #213: Veterinary Oversight

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

• Marketing status changed from OTC to Rx or VFD
  – Water soluble products to Rx
  – Products used in or on feed to VFD
“Medically Important” antimicrobials

- Includes antimicrobial drugs that are considered important for therapeutic use in humans
- Guidance #213 defines “medically important” to include:
  - All antimicrobial drugs/drug classes that are listed in Appendix A of FDA’s Guidance #152 (published 2003)
  - A complete list of affected drug applications is posted on FDA/CVM website
Veterinary Feed Directive

- Existing framework for veterinary oversight of feed use drugs is the veterinary feed directive (VFD)
- In 1996 Congress passed the ADAA stating that a drug intended for use in animal feed which requires professional supervision (oversight) of a licensed veterinarian is a VFD drug
- In 2000 FDA finalized regulations for authorization, distribution and use of VFDs
Updates to VFD regulation

• Changes intended to make the 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 became effective
When did this go in effect?
Implementation Timeline Summary

• October 1, 2015 – Updated VFD regulation went into effect

• January 1, 2017 –
  – As of this date, all medically important antimicrobials for use in or on feed require a VFD and those for use in drinking water require a Rx
  – And, it is no longer legal to use these drugs for production (growth promotion) purposes
Summary of Changes

Of the **292** new animal drug applications initially affected by Guidance for Industry #213:

— **84** were completely withdrawn

Of the remaining **208** applications,

- **93** (water products) – converted OTC to Rx
- **115** (feed products) – converted OTC to VFD

Production (e.g., growth promotion) indications were withdrawn from **31** applications
Antimicrobial Resistance – Next Steps
Antimicrobial Resistance – Next Steps

• On 9/14/2018, CVM published a 5-year plan for [Supporting Antimicrobial Stewardship in Veterinary Settings](https://www.fda.gov) that outlines the key goals and objectives that will be our focus during fiscal years 2019 – 2023.

• We have divided our approach into two phases:
  – phase 1 actions initiated between fiscal years 2019 – 2021
  – phase 2 actions initiated between fiscal years 2022 – 2023

• Phases identified are meant to be target for initiating work and does not necessarily represent when the actions will be completed.
Antimicrobial Resistance – Next Steps

Goals of 5 Year Plan

1. Align antimicrobial drug product use with the principles of antimicrobial stewardship

2. Foster stewardship of antimicrobials in veterinary settings

3. Enhance monitoring of antimicrobial resistance and antimicrobial drug use in animals
Antimicrobial Resistance – Next Steps

Goal 1: Align antimicrobial drug products with the principles of antimicrobial stewardship

- **Objective 1.1**: Revise, as necessary, the use conditions for approved medically important antimicrobials in food-producing animals

- **Objective 1.2**: Develop and implement a strategy for promoting antimicrobial stewardship in companion animals

- **Objective 1.3**: Enhance processes to support new product development
Antimicrobial Resistance – Next Steps

Goal 1 Actions include:

Updating Appendix A of GFI #152

• GFI #152, Finalized in 2003, provides a risk assessment process for evaluating impact of antimicrobial drugs on AMR as part of the animal drug application process.

• Includes an appendix that ranks of antimicrobial drugs according to their importance in human medicine.

• This ranking (Appendix A) supports GFI #152 assessment process and is used to define which drugs would be considered “medically important.”
Antimicrobial Resistance – Next Steps

Goal 1 Actions include:

Bring remaining dosage forms* of medically important antimicrobials under the oversight of licensed veterinarians

• **Target** - issue a *draft* strategy by end of September 2019

• Intent to follow similar model used in the implementation of GFI #213, including robust dialogue with stakeholders and updates to keep the public aware of progress being made throughout the process

*Includes products that are approved for routes of administration other than feed or drinking water (e.g., injectables, intramammary).
Antimicrobial Resistance – Next Steps

Goal 1 Actions include:

Defining appropriate durations of use medically important antimicrobial drugs used in the feed or drinking water of food-producing animals

- **Target** - issue a draft strategy by end of September 2020
- CVM published a Federal Register notice in September 2016 requesting comment from the public on medically important antimicrobials used in animal feed or water that have at least one therapeutic indication without a defined duration of use.
  
  - CVM received over 260 comments
- Plan extensive stakeholder engagement in development of this strategy

**Note:** All products affected by this action are already under veterinary oversight.
Goal 2: Support efforts to foster stewardship of antimicrobials in veterinary settings

- **Objective 2.1**: Support outreach and education by providing information on antimicrobial stewardship

- **Objective 2.2**: Strengthen CVM compliance program activities to support antimicrobial stewardship

- **Objective 2.3**: Support international outreach and collaboration to foster antimicrobial stewardship in veterinary settings
Antimicrobial Resistance – Next Steps

Goal 2 Actions include:

Collaboration with other organizations to support stewardship – including:

• Other Federal agencies including USDA and CDC
• Veterinary and animal producer organizations
• State agencies that oversee licensing/practice standards

Examples

• USDA accreditation modules
• AVMA Committee on Antimicrobials
Antimicrobial Resistance – Next Steps

Goal 2 Actions include:

Strengthen CVM compliance program activities to support antimicrobial stewardship

• Are incorporating a veterinary feed directive (VFD) inspection component into our compliance program

• Inspections include examination of VFD order, requirements for the parties involved, and recordkeeping

• Expect to publish a summary of VFD inspection pilot conducted in FY 2016 - 2018
Antimicrobial Resistance – Next Steps

Goal 3: Enhance monitoring of antimicrobial resistance and antimicrobial drug use in animals

- **Objective 3.1:** Collect and analyze data on antimicrobial drug use in animals
- **Objective 3.2:** Enhance the collection and analysis of antimicrobial resistance data
- **Objective 3.3:** Increase data sharing and reporting to aid in the monitoring of antimicrobial drug use practices and resistance
Antimicrobial Resistance – Next Steps

Goal 3 Actions include: **Collecting Use Data**

**Funding cooperative agreements**

- A funding opportunity was announced in March 2016 seeking proposals for collecting information on antimicrobial use practices in various animal production settings.
  - Two projects were awarded in August 2016.

- The awardees are developing and piloting methodologies to collect detailed information on antibiotic drug use on farms, in cattle, swine, chickens, and turkeys

- Two ongoing projects:
  - Feedlot/dairy cattle
  - Broilers, turkeys, swine
Antimicrobial Resistance – Next Steps

Goal 3 Actions include: **Updating the NARMS Program**

- Implement recommendations provided by FDA’s Science Board including:
  - expanding testing to other food commodities (farm-raised seafood products at retail),
  - improving understanding of AMR using advanced genomic technologies and bioinformatics,
  - expanding retail meat sampling to improve the representativeness of data
Antimicrobial Resistance – Next Steps

Goal 3 Actions include: **Issue assessment report**

- **Target** – Issue report in 2019
  - CVM intends to publish a comprehensive report that integrates and analyzes available information to assess stewardship in veterinary settings
  - Including:
    - Use data captured from the cooperative agreements
    - USDA survey data
    - NARMS resistance data
    - Sales and distribution data and an appropriate method for applying a denominator to available data
    - Animal demographic/biomass data
    - Animal Health data
In Summary

• Significant progress has been made; changes implemented January 2017 was important milestone

• Antimicrobial stewardship requires the combined efforts of many stakeholders; more work is needed

• We are committed to working collaboratively with all key stakeholders; building on progress already made

• New 5-year plan intended to guide CVM’s activities moving forward; plan can be adjusted as needed in response to evolving science and available data