Center for Veterinary Medicine
Key Initiatives Plan
FY 2019-2020

TABLE OF CONTENTS

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INTRODUCTION

The Food and Drug Administration's (FDA) Center for Veterinary Medicine (CVM) promotes and protects human and animal health by ensuring the safety of the American food supply, the safety of animal food and devices, and the safety and effectiveness of animal drugs pursuant to applicable provisions of the Federal Food, Drug, and Cosmetic Act and other authorities. These provisions cover animals from which human foods are derived and pet (or companion) animals. In achieving our mission of *Protecting Human and Animal Health*, we evaluate new animal drug applications for safety and effectiveness; monitor animal drugs, animal food, and animal devices on the market; evaluate animal food additives for safety and utility; and conduct applied research to further protect public health. We also help promote and provide incentives for the availability of animal drugs to meet the needs of the large number and wide diversity of minor species, such as fish, honey bees, and birds, and for minor uses (infrequent and limited) in major species, such as cattle, turkeys, horses, and dogs.

CVM aspires to be a proactive public health regulatory organization that looks strategically at the current and future environment to anticipate potential opportunities and challenges and develops tactical plans to ensure we use resources as efficiently and effectively as possible. This document outlines the strategic direction of CVM for the fiscal years (FY)[1] 2019-2020 and reflects major initiatives that CVM is undertaking in FY 2019 and FY 2020. It does not include an exhaustive list of all the important activities that CVM will initiate and pursue over the upcoming years, nor does it include the innumerable activities we do daily to accomplish our mission. The CVM Key Initiatives Plan is updated as needed, taking into account progress made on specific issues as well as the factors and influences that may affect program delivery in the short and long term. Factors and influences we considered when developing this plan included emerging human and animal health issues, changes in priorities, budget, new responsibilities, tools, and applicable authorities.

SIGNIFICANT ACCOMPLISHMENTS

As we release our FY 2019-2020 Key Initiatives, we are proud to report the following significant accomplishments related to the initiatives identified in the CVM FY 2018-2019 Key Initiatives Plan.

Initiative No. 1: Modernizing Food and Feed Safety

- The following are some of the key guidance documents published in 2018, with a full list of Food Safety Modernization Act (FSMA) related guidance documents available on FDA's FSMA website:
  - Draft Guidance for Industry (GFI) #246: Hazard Analysis and Risk-Based Preventive Controls for Food for Animals; Supply Chain Program to help receiving facilities comply with Preventive Controls for Food for Animals (PCAF) requirements for establishing and implementing a supply-chain program for its suppliers. Published in June 2018.
  - Draft GFI #245, Hazard Analysis and Risk-Based Preventive Controls for Food for Animals to help owners, operators, or agents in charge of a facility to develop a food safety plan that complies with PCAF requirements. Published in January 2018.
  - Draft GFI: Foreign Supplier Verification Programs for Importers of Food for Humans and Animals to provide questions and answers to facilitate importers' understanding of the Foreign Supplier Verification Program requirements. Published in January 2018.

[1] The federal government's fiscal year covers the period from October 1 through September 30.

  - GFI: Policy Regarding Certain Entities Subject to the Current Good Manufacturing Practice and Preventive Controls, Produce Safety, and/or Foreign Supplier Verification Programs. Published in January 2018.

- Worked with the National Association of State Departments of Agriculture (NASDA) and the Association of American Feed Control Officials (AAFCO) to develop a framework to implement the provisions of FSMA covering PCAF. This document was presented at the NASDA annual meeting in September 2018.
- Collaborated with the Partnership for Food Protection (PFP) board to update the PFP strategic plan for 2018-2020 to ensure alignment with existing Integrated Food Safety System (IFSS) activities, organized a PFP 50-state webinar to celebrate the 10th anniversary of the PFP and share knowledge about IFSS programs, and led the completion of PFP's website.

Initiative No. 2: Antimicrobial Resistance Strategy

- Published an action plan, "Supporting Antimicrobial Stewardship in Veterinary Settings," which outlines key goals, objectives, and actions the Center will focus on during the next five years as part of a broader agency-wide strategy for combatting antimicrobial resistance in both veterinary and human health care settings. FDA announced the agency's approach to antibiotic stewardship and innovation via a Live Event: FDA Unveils Plan to Combat Antibiotic Resistance hosted by the Pew Charitable Trusts.
- Published the 2016 Summary Report on Antimicrobials Sold or Distributed for Use in Food-Producing Animals. While the FDA has published annual summary reports since 2009, the 2016 report was the first to include species estimates, which provides additional insight to the agency's understanding of sales and distribution data.
- Developed and launched, through the National Antimicrobial Resistance Monitoring System (NARMS), a new publicly available tool, Resistome Tracker, which allows users to examine the distribution of antimicrobial resistance genes in all Salmonella genomes deposited with the National Institutes of Health's National Center for Biotechnology Information. This tool will aid global efforts to address antibiotic resistance in foodborne pathogens.
- NARMS launched a pilot to conduct surveillance on veal at nine retail meat sites.
- The Veterinary Laboratory Investigation and Response Network (Vet-LIRN) continued implementing a pilot project to monitor antimicrobial susceptibility and to sequence selected veterinary pathogens. Twenty Vet-LIRN laboratories are gathering data on antibiotic susceptibility for various Salmonella species, E. coli, and Staphylococcus pseudointermedius, and they are providing the isolates to four Vet-LIRN laboratories that have sequencing capabilities.
- Released GFI #252: Antimicrobial Animal Drug Sales and Distribution Reporting Small Entity Compliance Guide to help small businesses comply with the Antimicrobial Animal Drug Sales and Distribution final rule.

Initiative No. 3: Compounding and Unapproved Animal Drugs

- Issued final GFI #210: The Index of Legally Marketed Unapproved New Animal Drugs for Minor Species. This guidance describes the process for adding a new animal drug to the Index, including how to use an alternative review process to confirm the drug's safety and effectiveness for the intended use.

Initiative No. 4: Pre-market Animal Drug Review

- Completed on-time review and action on 97 percent of pioneer drugs, or original new animal drug applications and reactivations, and 100 percent of generic drugs, or original abbreviated new animal drug applications and reactivations.
- Successfully completed negotiations and reauthorization of the Animal Drug User Fee Amendments of 2018 (ADUFA IV) and Animal Generic Drug User Fee Amendments of 2018 (AGDUFA III). Authorizing legislation also included several new amendments relating to the use of conditional approval in major animal species in certain circumstances; studies and investigation design; and enhancements to the animal food additive program.
- FDA and Health Canada have simultaneously reviewed and approved eight applications under the U.S.-Canada Regulatory Cooperation Council program, which continues to grow with 19 products under simultaneous review as of the date of publication of this plan.
- Published GFI # 3: General Principles for Evaluating the Human Food Safety of New Animal Drugs Used in Food-Producing Animals to describe the type of scientific data or information drug sponsors can provide to address the human food safety of new animal drugs used in food-producing animals.
- Published Draft GFI #197: Documenting Electronic Data Files and Statistical Analysis Programs to provide a framework for drug sponsors to provide electronic data files and programs to support their safety and effectiveness submissions.

Initiative No. 5: Emerging Technologies

- Announced the FDA Plant and Animal Biotechnology Innovation Action Plan to outline the key priorities the agency will pursue to support innovation in plant and animal biotechnology while advancing the agency's public health mission.
- Launched the Veterinary Innovation Program (VIP) pilot to offer intensive technical and programmatic assistance to developers of certain innovative veterinary products, including animal biotechnology products.
- Developed new eSubmitter templates to enable the submission of all veterinary master files and investigational new animal drug submissions electronically. These templates are specific to the unique submissions associated with both the intentional genetic alterations (IGA) in animals and cell-based products review processes (pre-investigational development, product characterization, durability, etc.).

Initiative No. 6: Post-market Drug Safety, Effectiveness, and Quality

- CVM issued three FDA Animal Drug Safety Communications to inform stakeholders of detected safety concerns in both animal drugs and human drugs (that may be used extra-label or result in accidental exposure) in animals.[2]
- Issued a proposed rule, Postmarketing Safety Reports for Approved New Animal Drugs; Electronic Submission Requirements, to require animal drug sponsors to submit to the agency certain adverse drug experience and product manufacturing defect reports on Form FDA 1932 in electronic format. Receiving these postmarketing safety reports electronically allows the agency to more rapidly review and identify emerging safety problems and notify veterinarians and animal caretakers about safety signals.

[2] FDA Animal Drug Safety Communication, September 21, 2018; FDA Animal Drug Safety Communication, September 20, 2018; FDA Animal Drug Safety Communication, June 29, 2018.

KEY STRATEGIC INITIATIVES

This FY 2019-2020 Key Initiatives Plan outlines key opportunities for CVM to adapt to a changing environment, while increasing momentum on the FDA's 2018 Strategic Policy Roadmap to advance FDA's public health mission. Delivering on our mandate and vision will depend upon our ability to meet our commitments to our four core programs: 1) New Animal Drug Evaluation; 2) Animal Food Evaluation; 3) Detection of and Response to Animal Drug Adverse Events and Zoonotic and Foodborne Outbreaks and Contamination Incidents; and 4) Surveillance and Compliance Activities for Animal Food and Drugs. For FYs 2019-2020, CVM has identified the following six cross-cutting key strategic initiatives:

Initiative No. 1: Food Safety

Initiative No. 2: Antimicrobial Resistance

Initiative No. 3: Compounded Animal Drugs

Initiative No. 4: Pre-market Animal Drug Review

Initiative No. 5: Emerging Technologies

Initiative No. 6: Post-market Drug Safety, Effectiveness, and Quality

This document identifies broad actions that CVM will implement in FY 2019 and FY 2020 in alignment with the above initiatives to further its mission of protecting human and animal health.

1. FOOD SAFETY

The goal of this initiative is to promote and protect human and animal health by ensuring the safety of animal food.

Why is this an initiative?

Ensuring that the food people and animals eat is safe and protected from contamination is an essential element of promoting human and animal health. FDA faces unique challenges in the oversight of human and animal food safety in the 21st century, in part driven by globalization, the increasing complexity of international production and supply chains, and changing consumer demands. FSMA provided the mandate and authority to FDA to construct a modern integrated food safety system that protects food from farm to table, establishes shared responsibility for food safety among all participants, and strengthens accountability for prevention of foodborne illness, domestically and internationally. In addition, FDA's food safety oversight includes the pre-market review of new animal food ingredients and post-market surveillance and compliance. Pre-market review of new animal food ingredients is key to ensuring that new ingredients meet U.S. safety standards and are developed using the preventive approach to food safety FSMA requires. Post-market surveillance and compliance activities ensure that the animal food supply remains safe and that swift action is taken when food safety issues are detected. FDA utilizes the tools that FSMA has given the agency, in combination with pre-market and post-market responsibilities, to protect consumers and promote public health while providing the necessary flexibility to allow for changes in the science and practices of modern animal food production.

Action Plan

I. Clarify preventive control standards for animal food processing facilities.

- Develop guidance documents related to FSMA rules covering Current Good Manufacturing Practices (CGMP) and PCAF.
- (b)(5) [redacted]
- Publish comprehensive performance metrics for the FSMA PCAF and import controls rules.
- Develop a comprehensive animal food compliance program that includes both the CGMP and PC requirements of the PCAF rule.

II. Work with a variety of partners to conduct training, education, and outreach to help ensure effective implementation.

- Deliver CGMP and preventive control regulator training on the PCAF rule.
- Provide technical assistance to the animal food industry, FDA staff, consumers, and regulatory partners through the FSMA Technical Assistance Network.

III. Collaborate with the Partnership for Food Protection on continuing to build an Integrated Food Safety System.

- Work with NASDA, AAFCO, and state agencies to develop operational strategies to implement recommendations from the NASDA PCAF framework.

IV. Develop and implement standard laboratory methods, practices, and procedures.

- Develop and validate, in multiple laboratories, Vet-LIRN methods to detect selected food contaminants in animal diagnostic samples and seek markers of irradiation in pet food and pet treat products and pet treat.
- Use whole genome sequencing (WGS) to help investigate pathogen contamination of animal food and associated potential exposure and transmission to humans. Additionally, use WGS to characterize selected veterinary pathogens to identify genes that might not be found with routine testing.

V. Enhance the transparency and efficiency of the pre-market animal food approval process.

- Post on the FDA website the number of pending Food Additives Petitions (FAP) Intended for Use in Animal Food; how long each FAP has been pending, including any extensions; number of study protocols pending >50 days; and number of study protocols granted an extension.
- Develop a draft guidance relating to the voluntary pre-petition consultation process for food additives intended for use in animal food.

VI. Improve response to animal food adverse events, product surveillance, and investigations as part of the Pet Food Surveillance System.

- Collaborate with Vet-LIRN on animal food adverse events to further investigate issues of concern (including product/patient testing, coordination with experts, etc.).
- (b)(5) [redacted]
- Improve response time from identification of concerns to appropriate action.

2. ANTIMICROBIAL RESISTANCE

The goal of this initiative is to foster the judicious use of medically important antimicrobials in animals to slow the development of antimicrobial resistance.

Why is this an initiative?

Antimicrobial resistance is a significant challenge that has been identified as a major public health threat. All uses of antimicrobial drugs, including use in humans and animals, can contribute to the emergence of antimicrobial resistance of public health concern. Antimicrobial drugs are widely used in animals and such use can contribute to the overall antimicrobial resistance concern for humans. CVM is committed to helping shape public policy regarding the use of medically important antimicrobial drugs in animals. To continue its efforts to slow the development of antimicrobial resistance, CVM has identified key activities for fostering antimicrobial stewardship and will implement its five-year antimicrobial resistance action plan to support antimicrobial stewardship in veterinary settings.

Action Plan

I. Align antimicrobial drug products with the principles of antimicrobial stewardship.

- Seek public engagement on Appendix A of GFI #152: Evaluating the Safety of Antimicrobial New Animal Drugs with Regard to Their Microbiological Effects on Bacteria of Human Health Concern to update the list of medically important antimicrobials.
- Publish on the CVM website a list of medically important antimicrobial drugs of human importance that are approved for indications that lack a defined duration of use.
- Issue a draft strategy and provide a report to the House of Representatives Committee on Energy and Commerce and the Senate Committee on Health, Education, Labor, and Pensions identifying how the FDA will incorporate veterinary oversight for all approved medically important antimicrobial drugs administered to animals that are not yet subject to veterinary oversight.
- Develop and advance strategies to promote antimicrobial stewardship in companion animals.

II. Support efforts to foster stewardship of antimicrobials in veterinary settings.

- Engage industry stakeholders on how antimicrobial drug labeling information could be enhanced to support antimicrobial stewardship.
- Support outreach and education to foster antimicrobial stewardship in veterinary settings.

III. Enhance monitoring of antimicrobial resistance and antimicrobial drug use in animals.

- Consider recommendations by the FDA Science Board for NARMS and evaluate priorities to enhance the surveillance of antimicrobial resistance within the NARMS program.
- Expand NARMS to characterize resistance in bacteria from additional animal species and commodities where medically important antimicrobials are used.
- Transfer NARMS WGS activities to state laboratory partners to foster more timely data sharing for outbreak investigation and response.
- Evaluate and increase the capacity of Vet-LIRN laboratories to obtain and characterize antimicrobial resistance data in animal and zoonotic pathogens, including companion animals.

- Publish a comprehensive report that integrates and discusses information on animal health, animal agriculture economics, antimicrobial sales, antimicrobial use, judicious use, and antimicrobial resistance.

3. COMPOUNDED ANIMAL DRUGS

The goal of this initiative is to develop and implement policies addressing animal drugs compounded from bulk drug substances.

Why is this an initiative?

FDA is concerned about the number of animal drug products compounded from bulk drug substances being sold to animal owners and veterinarians. These compounded drugs have not been reviewed for safety or effectiveness.

To reduce the risk of harm from these compounded animal drugs, the program will identify new strategies to combat this growing area of concern.

Action Plan

I. Develop and implement strategies to address compounding of animal drugs from bulk drug substances (including for minor species).

- Publish draft GFI #256: Compounding Animal Drugs from Bulk Drug Substances. The guidance will describe FDA's current thinking with regard to animal drug compounding from bulk drug substances under certain circumstances when no other medically appropriate treatment options exist.
- Publish a final GFI #256 after receiving and reviewing stakeholder feedback via public comment processes.
- Continue ongoing risk-based inspections at compounding facilities and take appropriate action when compounding of animal drugs from bulk drug substances is outside the law and FDA policy.

4. PRE-MARKET ANIMAL DRUG REVIEW

The goal of this initiative is to improve access to safe and effective animal drug products.

Why is this an initiative?

CVM considers timely review of the safety and effectiveness of new animal drug applications to be central to our mission of protecting human and animal health. To ensure the availability of safe, effective, quality manufactured, and properly labeled new animal drug products, CVM uses a science-based approach. The Center also facilitates the introduction of innovative products and processes by increasing the certainty of the regulatory pathway for those products.

Action Plan[3]

I. Implement user fee program enhancements per the FYs 2019-2023 goals letters and the ADUFA/AGDUFA reauthorization amendments.

- Meet ADUFA and AGDUFA time frames for review and other performance goals.
- Publish draft guidance on the expansion of the conditional approval pathway to certain additional drugs that are not intended for minor uses in major species or in minor species.
- Conduct reviews of some European Union Member States to determine the inclusion of veterinary pharmaceuticals in the United States-European Union Good Manufacturing Practice Inspection Mutual Recognition Agreement.
- Hold a public meeting to gather stakeholder input on a future guidance addressing investigational designs. Using the input from the public meeting, write and publish draft guidance(s) on investigational designs.
- Develop a draft guidance relating to the voluntary pre-petition consultation process for food additives intended for use in animal food.
- Continue to approve labeling supplements to add the "Approved by FDA" statement to both pioneer and generic approvals.

II. Collaborate in international harmonization activities that help leverage work and expertise from other competent expert authorities.

- Implement the U.S.-Canada Regulatory Cooperation Council Joint Work Plan to review animal drug applications simultaneously.
- Lead international harmonization collaborative efforts, including the Codex Committee on Veterinary Drug Residues in Food, VICH[4] Steering Committee, and global animal health conferences.

III. Proactively communicate with sponsors on submission expectations to enhance submission and data quality.

- Engage with sponsors on data quality and submission quality standards to further ensure efficient drug evaluation.
- Enhance the electronic review environment for animal drug applications and submissions.
- Continue to develop and refine eSubmitter templates, including the development of question-based review templates, to facilitate new animal drug review.

5. EMERGING TECHNOLOGIES

The goal of this initiative is to develop a flexible, risk-based approach to regulate emerging technologies that facilitates development of innovative products to enhance human and animal health while ensuring consumer confidence.

Why is this an initiative?

[3] Actions related to food safety are reflected under Key Initiative No. 1. Actions related to antimicrobial resistance are reflected under Key Initiative No. 2.
[4] International Cooperation on the Harmonisation of Technical Requirements for Registration of Veterinary Medical Products.

New and emerging technologies are poised to affect the fields of medicine and agriculture, among others. New technologies such as genome editing enable the intentional genomic alteration of animals for uses such as disease resistance, production of human therapeutics, and enhanced food production. Other new technologies such as cell-based products provide potential therapeutic solutions to unmet veterinary medical needs including chronic orthopedic conditions and inflammatory diseases. CVM is committed to using a flexible, risk-based regulatory framework based on sound science to further the advancement of emerging technologies for the development of safe and effective products, while ensuring consumer confidence. The FDA's Plant and Animal Biotechnology Innovation Action Plan provides an overview of the key priorities CVM will pursue to support innovation in plant and animal biotechnology and to advance the agency's public health mission.

Action Plan

I. (b)(5)

II. Publish new draft guidances addressing IGAs in animals and animal cell- and tissue-based products (ACTP):
   - (b)(5)
   - (b)(5)
   - On donor eligibility and CGMPs for ACTPs.
   - (b)(5)
   - (b)(5)

II. Publish a compliance program specific to IGAs in animals.

III. Communicate with IGA and ACTP sponsors on submission expectations to enhance submission and data quality.

IV. Develop and institute policies and procedures intended to incentivize and support development of IGAs in animals and ACTPs as described in the Veterinary Innovation Program.

V. Conduct a webinar on donor eligibility and good manufacturing practices for ACTPs.

6. POST-MARKET DRUG SAFETY, EFFECTIVENESS, AND QUALITY

The goal of this initiative is to implement a full lifecycle approach in evaluating marketed FDA-approved animal drugs and medicated feeds for safety, effectiveness, and quality.

Why is this an initiative?

Although a new animal drug product is scientifically evaluated before it is marketed, issues not evident during the pre-approval stage may appear after the product is approved and marketed commercially over time and when used in larger populations of animals. Therefore, the assessment of the safety and effectiveness, including human user safety, of a new animal drug is a continuing process that takes place

throughout the development and marketing of a drug. CVM will enhance our efforts to promptly detect, monitor, and learn from adverse experience reports of FDA-regulated animal health products to enhance the safety of marketed products. This may include animal medical devices. We may need to undertake voluntary or enforcement actions to ensure unsafe or ineffective products do not reach U.S. consumers. Further, CVM will continue evaluating animal drug labels and promotional and advertising materials to ensure they are truthful and not misleading and will continue reviewing inspection reports and other scientific data to determine whether regulated products are being marketed in accordance with the applicable provisions of the Federal Food, Drug, and Cosmetic Act, other legal authorities, and FDA regulations and policy.

Action Plan[5]

I. Advance surveillance systems for adverse events for approved animal drugs, unapproved animal drugs, and veterinary devices to identify safety signals and issues of concern.

- Enhance existing adverse drug event (ADE) information technology systems to accept and process additional ADE data elements describing compounded animal drug products.
- Develop and implement signal detection and signal management strategies (including data mining ADE reports) for animal drug products.
- (b)(5) [redacted]
- Enhance adverse events reporting by leveraging communication with existing state and university partners in Vet-LIRN.

II. Ensure the continued safety and efficacy of approved animal drugs.

- (b)(5) [redacted]
- Publish a draft rule on import submission for FDA-regulated veterinary devices to ensure that FDA has adequate information to determine admissibility.
- Support and promote educational efforts to sponsors and distributors for appropriate promotion and advertising practices for approved animal drugs.

[5] Actions related to antimicrobial resistance are reflected under Key Initiative No. 2. Actions related to compounded animal drugs are reflected under Key Initiative No. 3.