4164-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2018-N-0001]

Best Practices in Modeling and Simulation for Oncology Products; Public Workshop

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of public workshop.

SUMMARY: The Food and Drug Administration's (FDA, the Agency, or we) Center for Drug Evaluation and Research (CDER), in co-sponsorship with the International Society of Pharmacometrics (ISoP), is announcing a public workshop entitled "Best Practices in Modeling and Simulation for Oncology Products." The purpose of the meeting is to discuss "best practices" in integrating pharmacokinetic, pharmacodynamic, efficacy, and safety data into models to best inform oncology drug development, evaluate disease- and mechanism-specific early endpoints to predict long-term efficacy, and discuss potential regulatory implications of model-informed decisions in drug development. This workshop is also being conducted to satisfy one of FDA's performance goals included in the sixth reauthorization of the Prescription Drug User Fee Act (PDUFA VI), part of the FDA Reauthorization Act of 2017 (FDARA), to hold a series of workshops related to model-informed drug development (MIDD).

DATES: The public workshop will be held on February 1, 2018, from 8 a.m. to 5 p.m., Eastern Time. See the SUPPLEMENTARY INFORMATION section for registration date and information.

ADDRESSES: The public workshop will be held at the FDA White Oak Campus, 10903 New Hampshire Ave., Bldg. 31 Conference Center, the Great Room (Rm. 1503, B and C), Silver Spring, MD 20993-0002. Entrance for public workshop participants (non-FDA employees) is through Building 1 where routine security procedures will be performed. For parking and security information, please refer to: http://www.fda.gov/AboutFDA/WorkingatFDA/BuildingsandFacilities/WhiteOakCampusInformation/ucm241740.htm.

FOR FURTHER INFORMATION CONTACT: Jeannette Dinin, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 22, Rm. 2108, Silver Spring, MD 20993-0002, 240-402-4978, email: Jeannette.Dinin@fda.hhs.gov; or Yvonne Knight, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 2142, Silver Spring, MD 20993-0002, 301-796-2133, email: Yvonne.Knight@fda.hhs.gov.

SUPPLEMENTARY INFORMATION:

I. Background

Under FDARA, FDA agreed, in accordance with section I of the PDUFA VI Performance Goals, Ensuring the Effectiveness of the Human Drug Review, part J, Enhancing Regulatory Decision Tools to Support Drug Development and Review, to convene a series of workshops to identify best practices for MIDD (https://www.fda.gov/downloads/ForIndustry/UserFees/PrescriptionDrugUserFee/UCM511438.pdf). FDA is conducting this workshop as part of the MIDD workshop series.

Over the past few decades, there has been extensive investment in oncology drug discovery and development. Despite greater understanding of disease biology and drug mechanisms of action, further progress in model-informed strategies is needed to continue advancements in oncology drug development. Innovations in clinical trial design utilizing more informative endpoints could help bring more effective treatment options to cancer patients faster by accelerating development of effective new drugs and reducing failure rates in expensive late-phase development.

As more effective and complex combination strategies and novel targets for cancer treatment evolve, exploring more informative and predictive endpoints to assess treatment response (e.g., response evaluation criteria in solid tumors- based endpoints (RECIST)) has become an active area of research. Alternative metrics that require shorter periods of observation or provide more precise assessment of treatment effects could lead to more rapid completion of clinical trials and require fewer patients. Promising among these alternative metrics are model-based metrics, such as those based on longitudinal continuous tumor size measurements. Additionally, model-informed approaches can help satisfy a need to optimize dosing regimens for patients. Investigations to refine dosing regimens often occur after new drug approval and/or are driven by pharmacometric modeling approaches. There is growing interest in using model-informed approaches to help balance the risks and benefits of oncology products by identifying optimal dosing regimens, and broad stakeholder engagement and discussion around this topic can be beneficial.

II. Objectives:

The objectives of the workshop are to:

1. Discuss “best practices” in integrating human pharmacokinetic, pharmacodynamic, efficacy, and safety data into models that best inform oncology drug development.

2. Describe novel imaging techniques and diagnostic and predictive biomarkers that may be utilized in oncology drug development.
3. Describe disease- and mechanism-specific early endpoints to predict long-term efficacy.
4. Evaluate the potential to shift from traditional RECIST-based endpoints such as Overall Response Rate (ORR) and Progression Free Survival (PFS) to modified RECIST approaches (e.g. imRECIST for immunotherapies) as well as to other (model-based) tumor kinetic metrics to support early decision making in Phase 1/2 as well as in confirmatory trials.
5. Discuss potential regulatory implications of model-informed decisions in drug development, including, model-based target identification, dose/exposure justification based on preclinical evidence, dose selection for first-in-human trials, quality by design, early clinical study design, dose finding/titration, confirmatory trials, product labeling, and post-marketing studies.

A detailed agenda will be posted on the following website in advance of the workshop: https://www.fda.gov/downloads/Drugs/NewsEvents/UCM589458.pdf.

III. Registration and Accommodations

Registration: Persons interested in attending this public workshop must register online by January 31, 2018, at https://fdaoce.formstack.com/forms/isop. Please provide complete contact information for each attendee, including name, title, affiliation, address, email, and telephone number.

Registration is free and based on space availability, with priority given to early registrants. Early registration is recommended because seating is limited; therefore, FDA may limit the number of participants from each organization. Registrants will receive confirmation when they have been accepted. If time and space permit, onsite registration on the day of the public workshop will be provided beginning at 8 a.m.

If you need special accommodations due to a disability, please contact Yvonne Knight (see FOR FURTHER INFORMATION CONTACT) no later than January 24, 2018.

Streaming Webcast of the Public Workshop: The meeting will also be webcast. A live webcast of this workshop will be available at https://collaboration.fda.gov/fdaisop/ on the day of the workshop. If you have never attended a Connect Pro event before, test your connection at https://collaboration.fda.gov/common/help/en/support/meeting_test.htm. To get a quick overview of the Connect Pro program, visit https://www.adobe.com/go/connectpro_overview. FDA has verified the website addresses in this document, as of the date this document publishes in the *Federal Register*, but websites are subject to change over time.

Transcripts: Please be advised that as soon as a transcript of the public workshop is available, it will be accessible at https://FDAOCE.formstack.com/forms/isop. It may be viewed at the Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

Dated: January 29, 2018.

Leslie Kux,

Associate Commissioner for Policy.

[FR Doc. 2018-01992 Filed: 1/31/2018 8:45 am; Publication Date: 2/1/2018]