

## FDA issues final guidance on benefit-risk factors to consider in medical device product availability, compliance, and enforcement decisions

23 January 2017

On December 27, 2016, the U.S. Food and Drug Administration (FDA) issued a final guidance document entitled “Factors to Consider Regarding Benefit-Risk in Medical Device Product Availability, Compliance, and Enforcement Decisions.”<sup>1</sup> The guidance provides insight into the factors FDA considers when prioritizing resources for compliance and enforcement efforts and when undertaking compliance and enforcement actions.

The guidance, which is largely consistent with the June 2016 draft, is intended to harmonize the agency’s approach to weighing benefits and risks for compliance and enforcement actions with the benefit-risk framework for assessing marketing and investigational device exemption (IDE) applications. FDA has indicated that it intends to use a consistent approach to benefit-risk analysis in considering compliance and enforcement actions and decisions on premarket applications. While the guidance may provide insight into both pre- and post-market considerations, premarket decision-making is beyond its scope.

The guidance outlines factors that may be used by medical device manufacturers to understand how FDA will approach various compliance and enforcement scenarios. This in turn could then be used by a company to develop voluntary remedial actions and communications with patients, caregivers, and FDA. The guidance also provides worksheets to help manufacturers conduct benefit-risk assessments, as well as a series of examples to demonstrate FDA’s application of the benefit-risk factors in various scenarios.

### Summary of benefit and risk factors

The guidance emphasizes that, to the extent possible, FDA intends to make informed and science-based decisions for how and when to proceed with compliance and enforcement actions against device manufacturers. FDA makes a holistic assessment by examining and weighing the potential benefits and risks of a device to patients and healthcare providers when considering whether or not to move forward with an enforcement action. Accordingly, devices that provide substantial benefit to patients while raising low risks generally will be considered a lower enforcement priority.

FDA identifies the following factors relating to the benefits of a device for consideration:

---

<sup>1</sup> Available at <http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM506679.pdf>.

- **Type of benefit(s)** – Evaluation of this factor includes consideration of the medical device’s impact on patient health and clinical management. In evaluating this factor, FDA will consider the effect of the device on patient treatment plans and the quality of life; impact on survival and ability to perform activities of daily living; and how much the medical device can aid in improving patient function, preventing loss of function, or providing relief from the symptoms of the disease or condition that it is intended to treat.
- **Magnitude of the benefit** – FDA will consider the effect of the product on patient health and clinical management, particularly in comparison with the originally anticipated impact. As part of this factor, FDA also will consider whether real-world data demonstrates successful diagnosis or treatment using the device, as well as whether actual use has led to new or additional benefits.
- **Likelihood of patients experiencing one or more benefits** – The agency also will consider the proportion of patients treated/diagnosed using the device that have benefited from its use. Data available to the manufacturer would be particularly important in evaluating this factor and in determining potential steps forward.
- **Duration of effects** – FDA will look at how long the effects of the device last (for instance, does the device cure a disease or provide a temporary treatment), and whether the actual duration of the effect is consistent with the anticipated duration of the effect.
- **Patient perspective on benefit** – The agency will consider how patients value the use of the medical device.
- **Benefit factors for healthcare professionals/caregivers** – FDA also will consider whether use of the device directly improves patient outcomes or improves clinical practice for healthcare professionals.
- **Medical necessity** – FDA will consider the importance of benefits provided or needs addressed by the device, as well as the extent to which these benefits or needs may be addressed by other available medical devices. The benefit and risk factors associated with alternative medical devices, their availability, and their effectiveness also will be considered as part of this factor.

While recognizing that all devices carry some level of risk, even without nonconformities or compliance issues, FDA also identified the following factors relating to the risk of a device for consideration:

- **Severity of harm.** FDA will consider the severity of harm presented by the device. The agency categorizes the potential harm into three levels:
  - **Medical device-related deaths and serious injuries** – Events that may have been or were attributed to the use of the medical device, and that cause or contribute to a death or injury or illness that is life threatening or that require medical surgical intervention to prevent permanent harm to the body. Note that the definition of serious

injury comes from 21 C.F.R. Part 803 (regulations pertaining to Medical Device Reporting (MDR)).

- **Medical device-related non-serious adverse events** – Events including those that may have been or were attributed to the use of the medical device and that cause or contribute to minor, temporary, or medically reversible injuries that do not meet the criteria for classification as a medical device-related serious injury.
- **Medical device related events without reported harm** – Events including malfunctions as defined in 21 C.F.R. Part 803. This category can include events where a medical device fails to meet performance specifications, even if the device still performs adequately to meet patient needs.
- **Likelihood of risk** – The agency also will evaluate the frequency of a specific failure mode as a proportion of patients treated with the device, both as anticipated by the manufacturer and as indicated based on data regarding use of the device in the field. Whether the identified failure mode is increasing also will be considered.
- **Distribution of nonconforming devices** – In assessing this factor, FDA will consider the number of nonconforming devices on the market and their market share.
- **Duration of exposure to population** – FDA will consider the length of time between initial patient exposure to the device and the point at which the risk of harm is resolved.
- **False-positive or false-negative results** – For diagnostic devices, FDA will evaluate the likelihood and consequences of a false-positive or false-negative, including providing unnecessary treatment or failure to provide effective treatment.
- **Patient tolerance of risk** – The level of concern patients have regarding the harm that may be caused by device.
- **Risk for clinicians/caregivers** – FDA will evaluate the frequency and severity of potential risks for health care professionals or caregivers.

In addition to the benefit and risk factors outlined above, FDA also will consider the following:

- The degree of uncertainty when making assessments.
- Mitigations that are taken by the manufacturer, FDA, or other stakeholders to benefit or limit harm.
- Detectability of the nonconformities.
- The specific failure modes in question.
- Scope of the device issue.
- Patient impact.
- Preference for availability.
- Nature of violations/nonconforming product.
- Firm compliance history.

## Key takeaways

This guidance explains the various factors considered when determining whether or not to take compliance or enforcement actions against medical device manufacturers, as well as whether or not to make such actions formal. In general, FDA has indicated that in situations where non-compliant products presenting high benefit to patients with little associated risk, FDA is likely to work with the manufacturer to address the underlying use without initiating a formal compliance or enforcement action. On the other hand, if FDA's benefit-risk assessment indicates low benefit to patients associated with high risk, a formal compliance or enforcement action is likely. Overall, the guidance memorializes the agency's intent to take a holistic view of enforcement and compliance actions and their implementation.

## Contacts



**Mike Heyl**

Partner, Washington, D.C.  
Tel +1 202 637 5456  
[mike.hey1@hoganlovells.com](mailto:mike.hey1@hoganlovells.com)



**Danielle Humphrey**

Senior Associate, Washington, D.C.  
Tel +1 202 637 8853  
[danielle.humphrey@hoganlovells.com](mailto:danielle.humphrey@hoganlovells.com)



**Arthur Kim**

Associate, Washington, D.C.  
Tel +1 202 637 4648  
[arthur.kim@hoganlovells.com](mailto:arthur.kim@hoganlovells.com)