



Food and Drug Administration  
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May 13<sup>th</sup>, 2014

Quidel Corporation  
C/O Ronald H. Lollar, Senior Director, Clinical and Regulatory Affairs  
2005 East State Street, Suite 100  
Athens, OH 45701

Re: K133448  
Lyra™ Direct HSV 1 + 2/VZV Assay  
Evaluation of Automatic Class III Designation – *De Novo* Request  
Regulation Number: 21 CFR 866.3309  
Regulation Name: Herpes virus nucleic acid-based cutaneous and mucocutaneous lesion panel  
Regulatory Classification: Class II  
Product Code: PGI  
Dated: February 20, 2014  
Received: February 21, 2014

Dear Dr. Lollar:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your *de novo* request for classification of the Lyra™ Direct HSV 1 + 2/VZV Assay. The intended use of the Lyra™ Direct HSV 1 + 2/VZV Assay is

The Lyra™ Direct HSV 1 + 2/VZV Assay is an in vitro multiplex Real-Time PCR test for qualitative detection and differentiation of herpes simplex virus type 1, herpes simplex virus type 2, and varicella-zoster virus DNA isolated and purified from cutaneous or mucocutaneous lesion samples obtained from symptomatic patients suspected of active herpes simplex virus 1, herpes simplex virus 2 and/or varicella-zoster infection. The Lyra™ Direct HSV 1 + 2/VZV Assay is intended to aid in the diagnosis of herpes simplex virus 1, herpes simplex virus 2 and varicella-zoster virus active cutaneous or mucocutaneous infections. Negative results do not preclude herpes simplex virus 1, herpes simplex virus 2 and varicella-zoster virus infections and should not be used as the sole basis for diagnosis, treatment or other management decisions. The Lyra™ Direct HSV 1 + 2/VZV Assay is not intended for use with cerebrospinal fluid or to aid in the diagnosis of HSV or VZV infections of the central nervous system (CNS). The Lyra™ Direct HSV 1 + 2/VZV Assay is not intended for use in prenatal screening. The device is not intended for point-of-care use.

FDA concludes that this device, and substantially equivalent devices of this generic type, should be classified into class II. This order, therefore, classifies the Lyra™ Direct HSV 1 + 2/VZV Assay, and substantially equivalent devices of this generic type, into class II under the generic name, “Herpes virus nucleic acid-based cutaneous and mucocutaneous lesion panel”.

FDA identifies this generic type of device as: herpes virus nucleic acid-based cutaneous and mucocutaneous lesion panel.

A herpes virus nucleic acid-based cutaneous and mucocutaneous panel is a qualitative *in vitro* diagnostic device intended for the simultaneous detection and differentiation of different herpes viruses in cutaneous and mucocutaneous lesion samples from symptomatic patients suspected of Herpetic infections. Negative results do not preclude infection and should not be used as the sole basis for treatment or other patient management decisions. The assay is not intended for use in cerebrospinal fluid samples.

Section 513(f)(2) of the FD&C Act was amended by section 607 of the Food and Drug Administration Safety and Innovation Act (FDASIA) on July 9, 2012. This new law provides two options for *de novo* classification. First, any person who receives a "not substantially equivalent" (NSE) determination in response to a 510(k) for a device that has not been previously classified under the Act may, within 30 days of receiving notice of the NSE determination, request FDA to make a risk-based classification of the device under section 513(a)(1) of the Act. Alternatively, any person who determines that there is no legally marketed device upon which to base a determination of substantial equivalence may request FDA to make a risk-based classification of the device under section 513(a)(1) of the Act without first submitting a 510(k). FDA shall, within 120 days of receiving such a request, classify the device. This classification shall be the initial classification of the device. Within 30 days after the issuance of an order classifying the device, FDA must publish a notice in the **Federal Register** classifying the device type.

In accordance with section 513(f)(1) of the FD&C Act, FDA issued an order on February 7, 2014, automatically classifying the Lyra™ Direct HSV 1 + 2/VZV Assay in class III, because it was not within a type of device which was introduced or delivered for introduction into interstate commerce for commercial distribution before May 28, 1976, nor which was subsequently reclassified into class I or class II. On February 21, 2014, FDA received your *de novo* requesting classification of the Lyra™ Direct HSV 1 + 2/VZV Assay into class II. The request was submitted under section 513(f)(2) of the FD&C Act. In order to classify the Lyra™ Direct HSV 1 + 2/VZV Assay into class I or II, it is necessary that the proposed class have sufficient regulatory controls to provide reasonable assurance of the safety and effectiveness of the device for its intended use.

After review of the information submitted in the *de novo* request, FDA has determined that the Lyra™ Direct HSV 1 + 2/VZV Assay intended for use as follows

The Lyra™ Direct HSV 1 + 2/VZV Assay is an *in vitro* multiplex Real-Time PCR test for qualitative detection and differentiation of herpes simplex virus type 1, herpes simplex virus type 2, and varicella-zoster virus DNA isolated and purified from cutaneous or mucocutaneous lesion samples obtained from symptomatic

patients suspected of active herpes simplex virus 1, herpes simplex virus 2 and/or varicella-zoster infection. The Lyra™ Direct HSV 1 + 2/VZV Assay is intended to aid in the diagnosis of herpes simplex virus 1, herpes simplex virus 2 and varicella-zoster virus active cutaneous or mucocutaneous infections. Negative results do not preclude herpes simplex virus 1, herpes simplex virus 2 and varicella-zoster virus infections and should not be used as the sole basis for diagnosis, treatment or other management decisions. The Lyra™ Direct HSV 1 + 2/VZV Assay is not intended for use with cerebrospinal fluid or to aid in the diagnosis of HSV or VZV infections of the central nervous system (CNS). The Lyra™ Direct HSV 1 + 2/VZV Assay is not intended for use in prenatal screening. The device is not intended for point-of-care use.

can be classified in class II with the establishment of special controls for this type of device. FDA believes that the class II special controls identified later in this order, along with the applicable general controls, provide reasonable assurance of the safety and effectiveness of the device type.

Table – Identified Risks and Required Mitigations

| <b>Identified Risks</b>                     | <b>Required Mitigations</b>        |
|---|------------------------------------|
| Risk of false results                       | Special controls (1), (2), and (3) |
| Failure to correctly interpret test results | Special controls (4) and (5)       |
| Failure to correctly operate the instrument | Special controls (6) and (7)       |

In addition to the general controls of the FD&C Act, a herpes simplex virus nucleic acid-based assay for central nervous system infections is subject to the following special controls:

- 1) Premarket notification submissions must include detailed documentation for the device description, including the device components, ancillary reagents required but not provided, and a detailed explanation of the methodology including primer design and selection.
- 2) Premarket notification submissions must include detailed documentation from the following analytical and clinical performance studies: Analytical sensitivity (Limit of Detection), reactivity, inclusivity, precision, reproducibility, interference, cross reactivity, carry-over, and cross contamination.
- 3) Premarket notification submissions must include detailed documentation of a clinical study using lesion samples in which Herpes Simplex Virus 1, Herpes Simplex Virus 2, or Varicella Zoster Virus DNA detection was requested. The study must compare the device performance to an appropriate well established reference method.
- 4) A detailed explanation of the interpretation of results and acceptance criteria must be included in the device's 21 CFR 809.10(b)(9) compliant labeling.

- 5) The device labeling must include a limitation statement that reads: “The device is not intended for use with cerebrospinal fluid or to aid in the diagnosis of HSV or VZV infections of the central nervous system (CNS).”
- 6) Premarket notification submissions must include quality assurance protocols and a detailed documentation for device software, including, but not limited to, standalone software applications and hardware-based devices that incorporate software.
- 7) The risk management activities performed as part of the manufacturer’s 21 CFR 820.30 design controls must document an appropriate end user device training program that will be offered as part of efforts to mitigate the risk of failure to correctly operate the instrument.

In addition, this is a prescription device and must comply with 21 CFR 801.109. Section 510(m) of the FD&C Act provides that FDA may exempt a class II device from the premarket notification requirements under section 510(k) of the FD&C Act, if FDA determines that premarket notification is not necessary to provide reasonable assurance of the safety and effectiveness of the device type. FDA has determined premarket notification is necessary to provide reasonable assurance of the safety and effectiveness of the device type and, therefore, the device is not exempt from the premarket notification requirements of the FD&C Act. Thus, persons who intend to market this device type must submit a premarket notification containing information on the herpes virus nucleic acid-based cutaneous and mucocutaneous lesion panel they intend to market prior to marketing the device and receive clearance to market from FDA.

Please be advised that FDA’s decision to grant this *de novo* request does not mean that FDA has made a determination that your device complies with other requirements of the FD&C Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the FD&C Act’s requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the FD&C Act); 21 CFR 1000-1050.

A notice announcing this classification order will be published in the **Federal Register**. A copy of this order and supporting documentation are on file in the Dockets Management Branch (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Room 1061, Rockville, MD 20852 and are available for inspection between 9 a.m. and 4 p.m., Monday through Friday.

As a result of this order, you may immediately market your device as described in the *de novo* request, subject to the general control provisions of the FD&C Act and the special controls identified in this order.

If you have any questions concerning this classification order, please contact Haja El Mubarak at 301-796-6193.

Sincerely yours,

Sally A. Hojvat, M.Sc., Ph.D.  
Director  
Division of Microbiology Devices  
Office of *In Vitro* Diagnostics and Radiological  
Health  
Center for Devices and Radiological Health

**Concurrence & Template History Page**  
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Full Submission Number: k133448

| <b>Digital Signature Concurrence Table</b> |                 |
|--|-----------------|
| Reviewer Sign-Off                          | Haja El Mubarak |
| Branch Chief Sign-Off                      | Stephen Lovell  |
| Division Sign-Off                          |                 |
| Policy Advisor Sign-Off                    | Scott McFarland |