February 18, 2021

Lucid Diagnostics, Inc.
% Janice Hogan
Partner
Hogan Lovells US LLP
1735 Market Street, 23rd Floor
Philadelphia, PA 19103

Re: K210137
Trade/Device Name: EsoCheck Cell Collection Device
Regulation Number: 21 CFR 874.4710
Regulation Name: Esophagoscope (Flexible or Rigid) and accessories
Regulatory Class: Class II
Product Code: EOX
Dated: January 19, 2021
Received: January 19, 2021

Dear Janice Hogan:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm identifies combination product submissions. However, you are responsible to determine that the medical devices you use as components in the kit have either been determined as substantially equivalent under the premarket notification process (Section 510(k) of the act), or were legally on the market prior to May 28, 1976, the enactment date of the Medical Device Amendments. Please note: If you purchase your device components in bulk (i.e., unfinished) and further process (e.g., sterilize) you must submit a new 510(k) before including these components in your kit. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of

Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the 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) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance) and CDRH Learn (https://www.fda.gov/training-and-continuing-education/cdrh-learn). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Shanil P. Haugen, PhD
Assistant Director
DHT3A: Division of Renal, Gastrointestinal,
Obesity and Transplant Devices
OHT3: Office of GastroRenal, ObGyn,
General Hospital and Urology Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120
Expiration Date: 06/30/2023
See PRA Statement below.

510(k) Number *(if known)*
K210137

Device Name
EsoCheck Cell Collection Device

Indications for Use *(Describe)*
The EsoCheck Cell Collection Device is indicated for use in the collection and retrieval of surface cells of the esophagus in the general population of adults, 22 years of age and older.

Type of Use *(Select one or both, as applicable)*

☒ Prescription Use (Part 21 CFR 801 Subpart D) ☐ Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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510(k) SUMMARY

Lucid Diagnostics EsoCheck Cell Collection Device

Submitter's Name, Address, Telephone Number, Contact Person and Date Prepared

Lucid Diagnostics, Inc.
One Grand Central Place, Suite 4600
New York, NY 10165
Phone: (212) 949-4319
Facsimile: (212) 634-7403
Contact Person: Lishan Aklog, M.D.

Date Prepared: January 19, 2021

Name of Device

EsoCheck Cell Collection Device

Common or Usual Name

Balloon Cell Collection Device

Classification Name

Esophagoscope (flexible or rigid) and accessories

21 CFR 874.4710, Class II, Product Code EOX

Predicate Devices

EsoCheck CCD Cell Collection Device (K183262)

Intended Use

The EsoCheck Cell Collection Device is indicated for use in the collection and retrieval of surface cells of the esophagus in the general population of adults, 22 years of age and older.

Device Description

The EsoCheck Cell Collection Device is a sterile single-use disposable non-endoscopic balloon capsule catheter designed to collect and retrieve surface cells of the esophagus. The balloon capsule is attached to a catheter and swallowed with the balloon deflated and inverted. Once positioned, the balloon is inflated and withdrawn allowing its textured surface to swab the surface of the targeted segment of the esophagus, retrieving cells in the process. The balloon is then deflated, retracting it along with the retrieved cells on its surface into the capsule, where they are protected from dilution or contamination as the capsule is fully withdrawn from the patient. The balloon is cut from the capsule and placed in the desired specimen container. The specimen is then sent for diagnostic processing and analysis.

This version of the device is a modification to the predicate EsoCheck CCD Cell Collection Device that was cleared under K183262. The minor changes made to the device include minor changes to the secondary packaging design and a design change (addition of a tether) to increase tensile stiffness of the catheter during removal. In addition, the previous version of the device utilized 2 syringes, a 20cc syringe and a 5cc syringe, to complete the procedure. The modified device will utilize a single 20cc syringe to streamline the process and the syringe will have markings printed on its surface indicating different volumes.

Performance Data

The following tests were performed to validate the modifications to the device:

- Sterilization Validation in accordance with AAMI TIR 28:2016 Product Adoption and Process Equivalence for Ethylene Oxide Sterilization;
- Packaging Validation;
- Shelf-Life Testing;
- Usability Confirmation Testing;
- Bench Performance Testing.

Substantial Equivalence

The EsoCheck Cell Collection Device has the same intended use, indications for use, and principles of operation, as well as similar technological characteristics as the previously cleared device. The minor differences in the device design and technical characteristics of the updated device do not raise any new questions of safety or effectiveness. Performance data demonstrates that the modified device is as safe and effective as the predicate device. Thus, the modified EsoCheck Cell Collection device is substantially equivalent to its predicate device.