May 31, 2022

Shenzhen Finicare Co., Ltd.
% Boyle Wang
Official Correspondent
Shanghai Truthful Information Technology Co., Ltd.
Room 608, No. 738 Shangcheng Rd.,
Pudong Shanghai, 200120
CHINA

Re: K220113
Trade/Device Name: Upper Arm Electronic Blood Pressure Monitor (Models FC-BP100, FC-BP101, FC-BP102, FC-BP110, FC-BP111, FC-BP112)
Regulation Number: 21 CFR 870.1130
Regulation Name: Noninvasive Blood Pressure Measurement System
Regulatory Class: Class II
Product Code: DXN
Dated: April 21, 2022
Received: April 27, 2022

Dear Boyle Wang:

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. 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,

LCDR Stephen Browning
Assistant Director
Division of Cardiac Electrophysiology,
Diagnostics and Monitoring Devices
Office of Cardiovascular 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)*
K220113

Device Name
Upper Arm Electronic Blood Pressure Monitor(Model:FC-BP100,FC-BP101,FC-BP102,FC-BP110,FC-BP111,FC-BP112)

Indications for Use *(Describe)*
Upper Arm Electronic Blood Pressure Monitor, Models FC-BP100,FC-BP101,FC-BP102,FC-BP110,FC-BP111,FC-BP112 are intended to measure the systolic and diastolic blood pressure and pulse rate of an adult individual by using a non-invasive technique in which an inflatable cuff is wrapped around the upper arm.
The devices' features include irregular pulse rhythm detection during measurement, and will display a alert signal with the reading when irregular heartbeat is detected.
The devices' feature includes Bluetooth function to transmit data to an external Bluetooth device with wireless communication.

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.

DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

Department of Health and Human Services
Food and Drug Administration
Office of Chief Information Officer
Paperwork Reduction Act (PRA) Staff
PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."

510(k) Summary

K220113

This summary of 510(k) safety and effectiveness information is being submitted in accordance with requirements of 21 CFR 807.92.

1.0 Submitter's Information

Name: Shenzhen Finicare Co., Ltd.
Address: 201, No.50, the 3rd Industrial Park, Houting Community, Shajing Street, Bao'an District, Shenzhen 518104 China
Tel: 86-755-23013503
Contact: Chao Li

Designated Submission Correspondent

Contact: Mr. Boyle Wang
Name: Shanghai Truthful Information Technology Co., Ltd.
Address: Room 608, No. 738 Shangcheng Rd., Pudong Shanghai, 200120 China
Tel: +86-21-50313932
Email: Info@truthful.com.cn

Date of Preparation: May.29,2022

2.0 Device Information

Trade name: Upper Arm Electronic Blood Pressure Monitor
Common name: Noninvasive Blood Pressure Measurement System
Classification name: Noninvasive Blood Pressure Measurement System
Model(s): FC-BP100,FC-BP101,FC-BP102,FC-BP110,FC-BP111, FC-BP112
Production code: DXN
Regulation number: 21 CFR 870.1130
Classification: Class II
Panel: Cardiovascular

3.0 Predicate Device Information

Manufacturer: Truly Instrument Limited
Trade name: Arm Blood Pressure Monitor,Model: DB66-1, DB68

510(k) number: K192023

4.0 Indication for Use Statement

Upper Arm Electronic Blood Pressure Monitor, Models FC-BP100,FC-BP101,FC-BP102,FC-BP110,FC-BP111,FC-BP112 are intended to measure the systolic and diastolic blood pressure and pulse rate of an adult individual by using a non-invasive technique in which an inflatable cuff is wrapped around the upper arm.
The devices' features include irregular pulse rhythm detection during measurement, and will display a alert signal with the reading when irregular heartbeat is detected.
The devices' feature includes Bluetooth function to transmit data to an external Bluetooth device with wireless communication.

5.0 Device Description

The subject device, Upper Arm Electronic Blood Pressure Monitor, is an automatic non-invasive blood pressure monitor which can be driven by 4 AA batteries or type-C USB (optional). It uses an inflatable cuff which is wrapped around the patient's upper arm to measure the systolic and diastolic blood pressure as well as the pulse rate of adult at household, not for neonate or pregnancy.

The unit uses the oscillometric method of blood pressure measurement. It means the unit detects the movement of your blood through your brachial artery, and converts your blood pressure into a digital reading. The unit is simple to use because a stethoscope is not needed while using an oscillometric monitor.

The unit stores the blood pressure and pulse rate in the memory after completing a measurement each time. 2x90 sets of measurement values can be stored automatically. The earliest record will be deleted automatically to save the latest measurement value when more than 2x90 sets. The unit also calculates an average reading based on the values of the latest 3 times measurement.

This blood pressure monitor has the function of blood pressure classification, which is convenient for you to judge whether your blood pressure is normal or not.

This blood pressure monitor has voice broadcast function. During measurement and recall the memory, there will be voice operation tips.

The device detects an Irregular HeartBeat (IRB) (a Heartbeat that is more than 25% slower or 25% faster from the average Heartbeat) two or more times during the measurement, the irregular heartbeat Symbol will appear on the display with the measurement values.

The device features a built-in "Bluetooth Data Transmission" function, which enables

the device automatically transmit measuring results to paired Bluetooth-enabled device (FC-BP100 and FC-BP110 applied).

There is a maximum pressure safety setting at 300 mmHg, when the pressure is more than 300mmHg, the device will exhaust fast automatically.

No operation for 1 minute the device will shut down automatically.

The device includes model FC-BP100,FC-BP101,FC-BP102,FC-BP110, FC-BP111, FC-BP112,they are same except the appearance.

6.0 Non-Clinical Test Conclusion

Non clinical tests were conducted to verify that the proposed device met all design specifications as was Substantially Equivalent (SE) to the predicate device. The test results demonstrated that the proposed device complies with the following standards:
ES 60601-1:2005/(R)2012 and A1:2012, C1:2009/(R)2012 - Medical electrical equipment - Part 1: General requirements for basic safety and essential performance.
IEC 60601-1-2:2014, Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests.
IEC 60601-1-11:2015, Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance - Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment
IEC 80601-2-30:2018, Medical Electrical Equipment - Part 2-30: Particular Requirements For The Basic Safety And Essential Performance Of Automated Non-Invasive Sphygmomanometers.
EN 300328:2019 Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques.
EN 301489-1:2019 ElectroMagnetic Compatibility (EMC)standard for radio equipment and services;Part 1:Common technical requirements.
EN 301489-17:2020 Electromagnetic compatibility and Radio spectrum Matters (ERM);ElectroMagnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions or Broadband Data Transmission Systems.
EN 62479:2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHZ to 300 GHZ)
IEC 62304:2015 standard and FDA Guidance for the Content of Pre-Market Submission for Software Contained in Medical Devices standard.

7.0 Clinical Test Conclusion

Performance testing has been carried out to demonstrate that this device meets the performance specifications for its intended use.

The clinical trials for the Upper Arm Electronic Blood Pressure Monitor were performed according the standard of ISO 81060-2:2018, Non-Invasive Sphygmomanometers - Part 2: Clinical Validation of Automated Measurement Type, and relevant volunteers were collected to conduct actual clinical trial of blood pressure measurement.

There were 138 subjects been selected to participate in the trial, and Auscultation was applied as gold standard with the qualified calibrated mercurial sphygmomanometer used as control group for comparison with the subject device.

The results shown that the accuracy of proposed device meet the requirements of ISO 81060-2:2018 within the ±5mmHg.And the subject device comply with the standard requirements and the accuracy the manufacture declared.

8.0 Technological Characteristic Comparison Table

Table1-General Comparison

Item	Subject Device K220113	Predicated Device K192023	Remark
Manufacturer	Shenzhen Finicare Co., Ltd.	Truly Instrument Limited	/
Product Name	Upper Arm Electronic Blood Pressure Monitor: FC-BP100,FC-BP101,FC-BP102, FC-BP110,FC-BP111, FC-BP112	Arm Blood Pressure Monitor DB66-1, DB68	/
Product Code	DXN	DXN	SE
Regulation No.	21 CFR 870.1130	21 CFR 870.1130	SE
Class	II	II	SE
Intended Use/Indication for Use	Upper Arm Electronic Blood Pressure Monitor, Models FC-BP100,FC-BP101,FC-BP102,FC-BP110,FC-BP111,FC-BP112 are intended to measure the systolic and diastolic blood pressure and pulse rate of an adult individual by using a non-invasive technique in which an inflatable cuff is wrapped around the upper arm. The devices' features include irregular pulse rhythm detection during measurement, and will display a alert signal with the reading when irregular heartbeat is detected. The devices' feature includes Bluetooth function to transmit data to an external Bluetooth device with wireless communication.	Automatic Arm Blood Pressure Monitor DB series, Models DB66-1, DB68 are a series devices intended to measure the systolic and diastolic blood pressure and pulse rate of an adult individual by using a non-invasive technique in which an inflatable cuff is wrapped around the upper arm. The devices' features include irregular pulse rhythm detection during measurement, and will display a alert signal with the reading when irregular heartbeat is detected. The devices' feature include Bluetooth function to transmit data to an external Bluetooth device with wireless communication.	SE
Application Site	Upper Arm	Upper Arm	SE
Cuff Circumference	22-42cm	Not Publicly available	Different
Patients Contacting Materials	Patient contact materials of the cuff: 210D Nylon TPU According to ISO-10993	Cuff According to ISO-10993	SE
Patient Population	Adult	Adult	SE
Measurements Item	SYS,DYS,Pulse	SYS,DYS,Pulse	SE
Display	LCD Digital Display	Liquid crystal display	SE
Design Method	Oscillometric Method	Oscillometric Method	SE

Table 2 Performance Comparison

Item	Subject Device	Predicate Device K192023	Remark
Max Cuff	300mmHg	300mmHg	SE

pressure			
BP Range	0-299 mmHg	20 ~ 280 mmHg	Different
BP Accuracy	±3 mmHg	±3 mmHg	SE
PR Range	40-180 beats/min	40 ~ 195 beats/min	Different
Pulse Accuracy	±5% of reading value	±5% of reading value	SE
Irregular heartbeat detection	More than ±25% to the mean interval of pulse intervals.	More than ±25% to the mean interval of pulse intervals.	SE
Inflation Method	Automatic inflation by pump	Automatic internal pump	SE
Deflation Method	Automatic rapid deflation	Automatic deflation	SE
Memory Size	2x90 set of data	99 set	Different
Operation Condition	10~40℃ 15~85%RH	10～40℃, 15～90％RH	Different
Storage Condition	-20~55 ℃ 0~95% RH	-20℃~ 60℃, 10%~95%RH	Different
Performance Standard	Comply with IEC 80601-2-30	Comply with IEC 80601-2-30	SE
Power Supply	4 AA batteries or DC6V,or USB Type C（DC5V1A）	Polymer battery DC3.7V, 500mAh. Or 4x 1.5V AA Battery	Different

Analysis:

The subject and predicate device have same general intended use, similar design features and performance specifications.

The differences in BP Range, PR Range and Memory Size do not raise different questions of safety or effectiveness since the device complied with the requirement of IEC 80601-2-30.

The differences in Operation Condition and Storage Condition between both devices are insignificant in terms of safety and effectiveness. Also, the little difference in power supply according to the Electrical Safety and EMC test result, the subject device is as safe, as effective, and performs as well as the legally marketed predicate device. So we think the subject device is substantially equivalent to the predicate device.

Table 3 Safety Comparison

Item	Proposed Device	Predicate Device K192023	Remark
Electrical Safety	Comply with IEC 60601-1	Comply with IEC 60601-1	SE
Home Use	Comply with IEC 60601-1-11	Comply with IEC 60601-1-11	SE
EMC	Comply with IEC 60601-1-2	Comply with IEC 60601-1-2	SE
FCC conformity	FCC 47 part 15 subject B	FCC 47 part 15 subject B	SE
ERM conformity	EN 301489-1:2017; EN301489-17:2017	EN3014891:2017; EN301489-17:2017	SE
RF conformity	EN300328:2016	EN300328:2016	SE

Health	EN62479:2010	EN62479:2010	SE
Biocompatibility	Comply with ISO 10993-1, FDA Guidance	Comply with ISO 10993-1, FDA Guidance	SE

9.0 Conclusion

The conclusions drawn from the comparison and analysis above demonstrate that the subject device is as safe, as effective, and performs as well as the legally marketed predicated device and raises no new questions of safety or effectiveness. The differences between both devices are insignificant in terms of safety and effectiveness.