



November 25, 2024

Zhejiang Kairui Medical Device Co., Ltd
Jinfeng Ning
Manager
Manton Business and Technology Services
37 Winding Ridge
Oakland, New Jersey 07436

Re: K241588

Trade/Device Name: Electric Wheelchair (KR8803)
Regulation Number: 21 CFR 890.3860
Regulation Name: Powered Wheelchair
Regulatory Class: Class II
Product Code: ITI
Dated: October 31, 2024
Received: October 31, 2024

Dear Jinfeng Ning:

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 (the 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 available 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.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 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 Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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,


Heather L. Dean -S

Heather Dean, PhD
Assistant Director, Acute Injury Devices Team
DHT5B: Division of Neuromodulation and
Physical Medicine Devices
OHT5: Office of Neurological and
Physical Medicine Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Indications for Use

Submission Number (if known)

K241588

Device Name

Electric Wheelchair (KR8803)

Indications for Use (Describe)

The "Electric Wheelchair, Model: KR8803" is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.

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
PRASaff@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:

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

1.0 Submitter Information

ZHEJIANG KAIRUI MEDICAL DEVICE CO., LTD
No.85, Dengyun Road, Tangxia, Ruian, Zhejiang, China
Tel: 86-13806851268
Submitter's FDA Registration Number: N/A

Submission Correspondent



Primary Contact:
Jinfeng Ning (Ph. D)
Manton Business and Technology Services
37 Winding Ridge, Oakland, NJ 07436
Tel: 1-504-256-3616
Email: jfning@gmail.com

Secondary Contact:
Charles Shen (Ph. D)
Manton Business and Technology Services
37 Winding Ridge, Oakland, NJ 07436
Tel: 1-608-217-9358
Email: cyshe@aol.com

Date of Summary: May 16, 2024

2.0 Device Information

Proprietary Name:	Electric Wheelchair, Model: KR8803
Common Name:	Electric Wheelchair
Classification Name:	Powered Wheelchair
Device Classification:	II
Regulation Number:	21 CFR 890.3860
Product Code:	ITI
Panel:	Physical Medicine

3.0 Predicate Device Information:

Manufacturer: Jiangsu Jumao X-Care Medical Equipment Co.,Ltd
Product Name: Power wheelchair (Model: JMPW-01W)
510(K) #: K232783

4.0 Device description:

The Electric Wheelchair (Model: KR8803) is a motor-driven, and indoor/outdoor electric transportation vehicle that is intended to be used by individuals that are disabled or elderly for short distance travel. It has a base with Aluminum alloy frame, two front wheels, two rear wheels, two anti-tippers, two arm rests, one seat, one backrest frame with push handle, two brushed DC motor. One driver and one controller, one lower leg support assemblies, one foot support, electromagnetic braking system, steering mechanisms and one rechargeable Li-ion battery with an off-board charger. The movement of the wheelchair is controlled by the occupant or assistant who operates the controller (joystick). The device is installed with an electromagnetic brake that will engage automatically when the wheelchair is not in use and the brake cannot be used manually. The device only can be operated on the flat road.

The Electric Wheelchair has a physical dimension of 105 (depth) x 60 (width) x 99 (height) cm, with the seat itself has a dimension of 44.5 (depth) x 45 (width) x 42 (height) cm. The footrest is 9.5 cm in height. The device is foldable, and the folded dimension is 60 (Long) x 39.5 (width) x 80 (height) cm.

The Electric Wheelchair has a maximum weight capacity of 120 kilograms, and weighs about 26.68 kilograms with battery (23.5 kilograms without battery). The color is black.

The Electric Wheelchair consists of four wheels, a mechanical main frame, seat, backrest frame with push handle, and mesh fabric upholstery that is ignition resistant.

The frame of the device is made of aluminum alloy.

The Electric Wheelchair uses aluminum alloy wheels and the back wheel has a diameter of 25.4 cm (12 inch) and the front wheel has a diameter of 20.3 cm (8 inch). Both front wheels use solid tires and the back wheels are pneumatic tires.

The Electric Wheelchair has a motor of 24V and 250 Watt, which allows a maximum speed of 5.2 kilometers per hour, and maximum travel range of 20 kilometers. The wheel lock is in the form of electromagnetic force to apply mechanical resistance to the rear wheels to force stop.

5.0 Indications for Use:

The “Electric Wheelchair (Model: KR8803)” is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.

6.0 Comparison to Predicate Devices

The “Electric Wheelchair (Model: KR8803)” manufactured by “*ZHEJIANG KAIRUI MEDICAL DEVICE CO., LTD*” is compared with the following Predicate Device in terms of intended use, design, material, specifications, and performance.

- (1) K232783, “Power wheelchair (Model: JMPW-01W)”, manufactured by “*Jiangsu Jumao X-Care Medical Equipment Co.,Ltd*”

The following table shows similarities and differences of use, design, and material between our devices and the predicate device.

Table5.1: Comparison of Intended Use, Design, and Material

Characteristic	Subject Device	Predicate Device (K232783)	Substantial Equivalence
Indication for use	It is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.	It is a motor driven, indoor and outdoor transportation vehicle with the intended use to provide mobility to a disabled or elderly person limited to a seated position.	S.E.
Overall length	1050 mm	870 mm	Similar
Overall width	600 mm	710mm	Similar
Stowage dimension	395 x 600 x 800 mm	670 x 560 x 615 mm	Similar
Weight with batteries	26.68 KG	29 KG	Similar
Weight without batteries	23.5 KG	24.2 KG	SE
Movement control method	By Joystick control	By Joystick control	S.E.
Electronic Controller	Yanteon Electromechanical Technology (Shanghai) Co., Ltd, X2445B, 45A	Yanteon Electromechanical Technology (Shanghai) Co., Ltd, Y2450C-JW01, 50A	Similar
Drive Style (e.g., rear, mid, front)	Rear-wheel drive	Direct drive on the rear wheels	S.E.
Motor	Brushed DC motor, 24V 250W	Brushless DC motor; 24VDC; 250W; 2pcs	Similar
Batteries	Li-ion battery	Lead-acid	S.E.
Battery charger	Off-board charger Input: 100-240V 50/60Hz Output: 29.4Vdc, 3A	Off-board charger Input: 110-240V, 50/60Hz Output: 24 Vdc, 2A	Similar
Brake	Electromagnetic brake	Electromagnetic brake	S.E.
Wheel Lock (type)	electromagnetic brake	electromagnetic brake	S.E.

Max speed Forward	6 km/h	Up to 6 km/h, adjustable	Similar
Braking distance	0.7m	1m	Similar
Rear Wheels Size	12 inches	8 inches	Similar
Front Tire Size	8 inches	7 inches	Similar
Tire Pressure (if pneumatic)	N/A	NA	S.E.
Maximum Occupant Mass	120 KG	120 KG	S.E
Ground clearance	95 mm	63.5 mm	Similar
Turning Radius	1.2 m	0.9m	Similar
Maximum obstacle climbing	40mm	40mm	S.E.
Operating surface & environment	Indoor and outdoor use	Indoor and outdoor use	S.E.

The minor differences between the subject device and predicate device do not raise any concerns in terms of safety and effectiveness.

7.0 Non-Clinical Study Summary

Non clinical tests were conducted to verify that the proposed device met all design specifications. The test results demonstrated that the proposed device complies with the following standards:

Tests	Standard
Biocompatibility	All user directly contacting materials are compliance with ISO10993-1 requirements.
EMC	ISO7176-21: Wheelchairs - Part 21: Requirements and test methods for electromagnetic compatibility of electrically powered wheelchairs and scooters, and battery chargers

Performance	ISO 7176-1: Wheelchairs – Part 1: Determination of static stability ISO 7176-2: Wheelchairs - Part 2: Determination of dynamic stability of electrically powered wheelchairs ISO 7176-3: Wheelchairs - Part 3: Determination of effectiveness of brakes ISO 7176-4: Wheelchairs - Part 4: Energy consumption of electric wheelchairs and scooters for determination of theoretical distance range ISO 7176-5: Wheelchairs - Part 5: Determination of overall dimensions, mass and manoeuvring space ISO 7176-6: Wheelchairs - Part 6: Determination of maximum speed, acceleration and deceleration of electric wheelchairs ISO 7176-7: Wheelchairs - Part 7: Measurement of seating and wheel dimensions ISO 7176-8: Wheelchairs - Part 8: Requirements and test methods for static, impact and fatigue strengths ISO 7176-9: Wheelchairs - Part 9: Climatic tests for electric wheelchairs ISO 7176-10: Wheelchairs - Part 10: Determination of obstacle-climbing ability of electrically powered wheelchairs ISO 7176-14: Wheelchairs - Part 14: Power and control systems for electrically powered wheelchairs and scooters - Requirements and test methods ISO 16840-10 Wheelchair seating - Part 10: Resistance to ignition of postural support devices - Requirements and test method
-------------	--

8.0 Clinical Study Summary

Clinical study is not performed for this product.

9.0 Conclusion

The conclusions drawn from the nonclinical tests that demonstrate is that the subject device is as safe, as effective, and performs as well as the legally marketed device.