



January 11, 2022

Suzhou JaneE Medical Technology Co., Ltd
% Ivy Wang
Consultant
Shanghai Sungo Management Consulting Company Limited
14 th Floor, 1500# Central Avenue
Shanghai, Shanghai 200122
China

Re: K212591

Trade/Device Name: Disposable Surgical Gown
Regulation Number: 21 CFR 878.4040
Regulation Name: Surgical Apparel
Regulatory Class: Class II
Product Code: FYA
Dated: December 8, 2021
Received: December 8, 2021

Dear Ivy 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,

For Clarence W. Murray III, PhD
Assistant Director
DHT4B: Division of Infection Control
and Plastic Surgery Devices
OHT4: Office of Surgical
and Infection Control Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)
K212591

Device Name
Disposable Surgical Gown

Indications for Use (Describe)

The Disposable Surgical Gowns are intended to be worn by operating room personnel during surgical procedures to protect the surgical patient and operating room personnel from the transfer of microorganisms, body fluids and particulate matter. In addition, this surgical gown meets the requirements of AAMI Level 3 barrier protection for a surgical gown per ANSI/AAMI PB70:2012 Liquid barrier performance and classification of protective apparel and drapes intended for use in health care facilities (AAMI PB70). This is a single use, disposable device, provided sterile.

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.

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510(K) Summary
K212591

A. Applicant:

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Submission Correspondent:

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B. Device:

Trade Name: Disposable Surgical Gown

Common Name: Surgical Gown

Model(s): Reinforced

Regulatory Information

Classification Name: Gown, Surgical

Classification: Class II

Product code: FYA

Regulation Number: 878.4040

Review Panel: Surgical Apparel

C. Predicate device:

K170762

Cardinal Health™ Non-Reinforced Surgical Gown

Cardinal Health 200, LLC

D. Intended use of the device:

The Disposable Surgical Gowns are intended to be worn by operating room personnel during surgical

procedures to protect the surgical patient and operating room personnel from the transfer of microorganisms, body fluids and particulate matter. This is a single use, disposable device, provided sterile.

E. Device Description:

The proposed device is a poly-reinforced surgical gown, the critical zone is front chest and sleeves. The critical zone is reinforced with PP/PE composite breathable film. The proposed device is available in four different sizes, include M, L, XL, TL. The proposed devices can meet the requirements for Level 3 per ANSI/AAMI PB70:2012. The proposed devices are disposable medical devices and provided sterile.

F. Comparison with predicate device

Device	Proposed Device	Predicate Device	Result
Manufacturer	Suzhou JaneE Medical Technology Co., Ltd.	Cardinal Health™	-
510K number	K212591	K170762	-
Product Name	Disposable Surgical Gown	Cardinal Health™ Non-Reinforced Surgical Gown	-
Classification	Class II Device, FYA (21 CFR878.4040)	Class II Device, FYA (21 CFR878.4040)	Same
Intended Use	The Disposable Surgical Gowns are intended to be worn by operating room personnel during surgical procedures to protect the surgical patient and operating room personnel from the transfer of microorganisms, body fluids and particulate matter. In addition, this surgical gown meets the requirements of AAMI Level 3 barrier protection for a surgical gown per ANSI/AAMI PB70:2012 Liquid barrier performance and classification of protective apparel and drapes intended for use in health care facilities	Cardinal Health™ Non-Reinforced Surgical Gown is intended to be worn by operating room personnel during surgical procedures to protect the surgical patient and operating room personnel from the transfer of microorganisms, body fluids and particulate material. In addition, this surgical gown meets the requirements of AAMI Level 3 barrier protection for a surgical gown per ANSI/AAMI PB70:2012 Liquid barrier performance and classification of protective apparel and drapes intended for use in health care facilities (AAMI PB70). The Cardinal Health™ Non-Reinforced Surgical Gowns are single use, disposable medical	Same

	(AAMI PB70). This is a single use, disposable device, provided sterile.	devices; provided sterile and non-sterile.	
Material Composition	Polyolefin (Polypropylene) SMS nonwoven	Polyolefin (Polypropylene) SMS nonwoven	Same
Sterility	Sterile	Sterile and non-sterile	Same
Use	Single Use; Disposable	Single Use; Disposable	Same
Color	Blue	Blue	Same
Size	M,L,XL,TL	M-S, M, L, XL, XXL	Similar. No effect on safety or efficacy
Weight per square(g)	Critical Area: 87.8g/m ² Non-Critical Area: 45.12g/m ²	31g/m ² (1.32 oz/yd ²)	Similar. No effect on safety or efficacy. Both passed performance tests.
Tensile	MD: 16.18 lbs (72N) CD: 13.26 lbs (59N)	MD Mean 21.57 lbs CD Mean 13.6 lbs	Similar. No effect on safety or efficacy. Both passed performance tests.
Tear	MD:22.25 lbs (99 N) CD:18.20 lbs (81N)	MD Mean 3.47 lbs CD Mean 5.63 lbs	Similar. No effect on safety or efficacy. Both passed performance tests.
Seam Strength	Sleeve Seam:68.3N Side Seam:69.7N Belt Seam:71N	No available	Similar. No effect on safety or efficacy. Both passed performance tests.

Hydrostatic Pressure(cm) AATCC-127	>50 cm	>50 cm	Same
Water Impact (g) AATCC-42	≤1.0 g	≤1.0 g	Same
Resistance to blood and liquid penetration	Level 3 AAMI PB70	Level 3 AAMI PB70	Same
Biocompatibility	<p>Under the conditions of the study, the device extract was not cytotoxic.</p> <p>Under the conditions of the study, the non-polar and polar device extracts were not found to be an irritant.</p> <p>Under conditions of the study, the non-polar and polar device extracts were not found to be a sensitizer.</p>		Same

G. Non-Clinical Test Conclusion

Non-clinical tests were conducted to verify that the proposed device met all design specifications. The subject surgical gown was assessed for performance using the following Standards and Test Methods. The test results demonstrated that the proposed device met its acceptance criteria or testing endpoints.

Test Methodology	Test Methodology Purpose	Acceptance Criteria	Results
AAMI/ANSI PB70:2012, Liquid Barrier Performance and Classification of protective Apparel and Drapes Intended For Use In Health Care Facilities.	The tests were performed to determine the classification of subject surgical gown product.	N/A	Level 3
ASTM D5587-15, Standard Test Method for Tearing Strength of Fabrics by Trapezoid Procedure	The test was performed in accordance with ASTM D5587: 2015(2019) Standard Test Method for Tearing Strength of Fabrics by Trapezoid Procedure to evaluate the tearing strength of the test sample.	>30N	PASS 72/59N (Average result from 3 nonconsecutive batches)
ASTM D5034-21, Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	The test was performed In accordance with ASTM D5034-21. Standard. Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test) to evaluate the breaking strength of the test sample.	>10N	PASS 99/81N (Average result from 3 nonconsecutive batches)
ASTM D1683M-17 Standard Test Method for Failure in Sewn Seams of Woven Fabrics.	The test was performed In accordance with ASTM D1683M-17 Standard. Test Method for Seam Strength of Textile Fabrics (Grab Test) to evaluate Failure in Sewn Seams of the test sample.	≥30N	PASS Sleeve Seam:68.3N Side Seam:69.7N Belt Seam:71N (Average result from 3 nonconsecutive batches)

AATCC 42-2013, Water Penetration Resistance: Impact Penetration Test;	The test was performed in accordance with AATCC 42: 2013 Water Resistance: Impact Penetration Test to evaluate the water impact of the test sample.	≤ 1.0 g	PASS 0~0.019 g (Average result from 3 nonconsecutive batches)
Evaporative Resistance ASTM F1868-17	The test was performed in accordance with ASTM F1868-17 to evaluate the Evaporative Resistance of the test samples	< 3 Pa.m ² /W.	PASS 2.46 Pa.m ² /W. (Average result from 3 nonconsecutive batches)
AATCC 127-2014, Water Resistance: Hydrostatic Pressure Test;	The test was performed in accordance with AATCC 127: 2014 Water Resistance: Hydrostatic Pressure Test to determine the hydrostatic pressure of the test sample.	> 50 cm	PASS 52~290 cm (Average result from 3 nonconsecutive batches)
CPSC 16 CFR Part 1610-2008, Standard for the Flammability of clothing textiles	The test was performed in accordance with 16 CFR Part 1610 Standard for the Flammability of Clothing Textiles to evaluate the flammability of the test sample.	Meets Class I requirements	PASS Class I (Average result from 3 nonconsecutive batches)
ISO 9073- 10:2003(E) Lint and Other Particles Generation	The test was performed in accordance with ISO 9073-10: 2003 Textiles-Test Methods for Nonwovens-Part 10: Lint and Other Particles Generation in the Dry State to evaluate the linting of the test sample.	Log ₁₀ (particle count) < 4	PASS 3.0 (Average result from 3 nonconsecutive batches)

ISO 10993-10: 2010 Biological Evaluation of Medical Devices - Part 10: Tests For Irritation And Skin Sensitization	The purpose of the biocompatibility testing is to demonstrate the biocompatibility of the subject device.	Non-irritating, and Non-sensitizing.	PASS Under the conditions of the study, the device is non-irritating, and non- sensitizing.
ISO 10993-5: 2009 Biological Evaluation of Medical Devices -- Part 5: Tests For In Vitro Cytotoxicity	The purpose of the biocompatibility testing is to demonstrate the biocompatibility of the subject device.	Non-cytotoxic.	PASS Under the conditions of the study, the device is non-cytotoxic.

H. Clinical Test Conclusion

No clinical study is included in this submission.

I. Conclusion

Based on the comparison and analysis above, the subject device, K212591 Disposable Surgical Gown, is as safe, as effective, and performs as well as the legally marketed predicate device, Disposable Surgical Gowns cleared under K170762.