

April 5, 2022

Promisemed Hangzhou Meditech Co., Ltd. % Wei Hsu Regulatory Manager Vee Care (Asia) Limited 17th Chung Pont Commercial Building, 300 Hennessy Road Hong Kong, Hong Kong China

Re: K213560

Trade/Device Name: Verifine Safety Syringe with Fixed Needle Regulation Number: 21 CFR 880.5860 Regulation Name: Piston Syringe Regulatory Class: Class II Product Code: FMF, MEG Dated: March 17, 2022 Received: March 17, 2022

Dear Wei Hsu:

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 <u>https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</u>); 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 <u>https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems</u>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<u>https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</u>) and CDRH Learn (<u>https://www.fda.gov/training-and-continuing-education/cdrh-learn</u>). 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 (<u>https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</u>) for more information or contact DICE by email (<u>DICE@fda.hhs.gov</u>) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

CAPT Alan M. Stevens Assistant Director DHT3C: Division of Drug Delivery and General Hospital Devices, and Human Factors OHT3: Office of GastroRenal, ObGyn, General Hospital and Urology Devices Office of Product Evaluation and Quality Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number *(if known)* K213560

Device Name Verifine Safety Syringe with Fixed Needle

Indications for Use (Describe)

It is intended to inject fluids into or withdraw fluids from the body for medical purposes.

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

1 Date Prepared

April 3rd, 2022

2 Submitter's Information

Name of Sponsor:

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3 Trade Name, Common Name, Classification

Trade/Product Name: Verifine Safety Syringe with Fixed Needle Common Name: Piston Syringe Classification name: Piston Syringe Regulation Number: 21 CFR 880.5860 Device Class: Class II Product Code: FMF, MEG

4 Identification of Predicate Device K211242; Sterile Hypodermic Syringes

5 Description of the Device

Verifine Safety Syringe with Fixed Needle is a sterile device consisting of a calibrated barrel with plunger and a fixed needle at the distal end.

It is made of plastic and silicone materials.

It includes an attached needle with a safety mechanism. The protective shield covers the needle. After injection, the shield is permanently locked in place by pushing axially until a click is heard, reducing risk of needle sticks and rendering the device unusable.

It can be used by health care personnel.

This is a single-use device.

Capacity C	Gauge	Needle Length	Packaging
	Gauge	Needle Length	Configuration
	28G	12mm, 16mm, 25mm, 32mm, 38mm	
	27G	12mm, 16mm, 25mm, 32mm, 38mm	
	26G	12mm, 16mm, 25mm, 32mm, 38mm	
0.5 ml	25G	12mm, 16mm, 25mm, 32mm, 38mm	
0.5 m	24G	12mm, 16mm, 25mm, 32mm, 38mm	
	23G	12mm, 16mm, 25mm, 32mm, 38mm	
	22G	12mm, 16mm, 25mm, 32mm, 38mm	Polypropylene/
	21G	12mm, 16mm, 25mm, 32mm, 38mm	Polyethylene
1.0 ml	28G	12mm, 16mm, 25mm, 32mm, 38mm	 composite membrane (XPP-B)
	27G	12mm, 16mm, 25mm, 32mm, 38mm	and Dialyzer paper
	26G	12mm, 16mm, 25mm, 32mm, 38mm	
	25G	12mm, 16mm, 25mm, 32mm, 38mm	
	24G	12mm, 16mm, 25mm, 32mm, 38mm	
	23G	12mm, 16mm, 25mm, 32mm, 38mm	
	22G	12mm, 16mm, 25mm, 32mm, 38mm	
	21G	12mm, 16mm, 25mm, 32mm, 38mm	

6 Indication

It is intended to inject fluids into or withdraw fluids from the body for medical purposes.

7 Similarities and Differences of the Proposed Devices to the Predicate Devices

The Verifine Safety Syringe with fixed Needle is substantially equivalent to the predicate device, the Sterile Hypodermic Syringes (K211242) in that these devices have same intended use and technological characteristics. The basic technological and operating principles are the same for both devices. Both the subject and predicate devices are disposable, sterile, single patient use devices. The differences between the subject device and predicate device do not affect the intended use or raise new questions of safety and effectiveness.

	Subject Device	Predicate Device (K211242)	
Trade Name	Verifine Safety Syringe with Fixed Needle	Sterile Hypodermic Syringes	Comments
Manufacturer	Promisemed Hangzhou	Promisemed Hangzhou	
	Meditech Co., Ltd	Meditech Co., Ltd	<u> </u>
Device Class	Class II Class II		Same
Product Code	FMF, MEG	FMF	Similar
			The subject device has additional safety shield to prevent sharp injury.
Regulation number	880.5860	880.5860	Same
Regulation Name	Piston syringe	Piston syringe	Same
Intended Use/	It is intended to inject	It is intended to be used	Same
Indications for Use	fluids into or withdraw	for medical purposes to	
	fluids from the body for	inject fluids into or	
	medical purposes.	withdraw fluids from the body.	
Operating	Plunger is used to fill	Plunger is used to fill	Different
Principle	syringe as well as	syringe as well as	
	discharge the fluid.	discharge the fluid.	The subject device has
	The protective shield will		additional safety shield to
	permanently be locked in		prevent sharp injury.
	place by pulling forward		
	till click, providing		
	protection against needle sticks.		
Volume	0.5ml,1.0ml	0.5ml,1.0ml	Same
Tip type	Fixed Needle	Fixed Needle	Same
Gauge	28G, 27G, 26G, 25G, 24G,	28G, 27G, 26G, 25G, 24G,	Same
	23G, 22G, 21G	23G, 22G, 21G	
Needle Length	12mm, 16mm, 25 mm,	10mm, 12mm, 16mm,	Different
	32mm, 38mm	20mm, 25mm, 32mm,	The needle length range of
		38mm, 50mm	subject device is within that of predicate device.
Gradations	Legible	Legible	Same

A detailed comparison to the predicate is provided in Table 1.

legibility			
Lubricant	Silicone oil	Silicone oil	Same
Barrel	Transparent	Transparent	Same
transparency	•		
Reuse durability	Single Use	Single Use	Same
Biocompatibility	Complied with ISO10993	Complied with ISO10993	Same
	series standards, and the	series standards, and the	
	following tests are	following tests are	
	performed	performed	
	- Cytotoxicity: No	- Cytotoxicity: No	
	cytotoxicity	cytotoxicity	
	- Skin Irritation: No	- Skin Irritation: No	
	evidence of skin irritation	evidence of skin irritation	
	- Skin Sensitization: No	- Skin Sensitization: No	
	evidence of sensitization	evidence of sensitization	
	-Acute Systemic Toxicity:	-Acute Systemic Toxicity:	
	No systemic toxicity	No systemic toxicity	
	-Hemolysis: No evidence	-Hemolysis: No evidence	
	of hemolysis	of hemolysis	
	-Pyrogen: Non pyrogenic -USP <788> Particulate	-Pyrogen: Non pyrogenic -USP <788> Particulate	
Configuration and	matter Needle: Stainless Steel	matter Needle: Stainless Steel	The needle of both devices
Materials	(X5CrNi18-10)	(X5CrNi18-10)	is made of stainless steel.
materials	Barrel/push-button:	Barrel/push-button:	The syringe bodies of
	Polypropylene	Polypropylene	subject device and predicate
	Plunger: Polypropylene	Plunger: Polypropylene/	device have material
	Needle cap: Polyethylene	Acrylonitrile Butadiene	differences. Differences are
	Piston: Polyisoprene	Styrene	addressed through
	rubber	Needle cap:	biocompatility testing per
	Sliding Sleeve, Cover:	Polyethylene/	ISO 10993.
	Polypropylene	Polypropylene	
	Plunger stopper, Tight	Piston: Polyisoprene	
	ring: Acrylonitrile	rubber	
	Butadiene Styrene		
Performance	Complied with ISO 7886-1,	Complied with ISO 7886-	Different
	ISO 9626, ISO 7864, ISO	1, ISO 9626, ISO 7864	The subject device has
	23908		additional safety shield to
			prevent sharp injury. The
			difference is addressed
			through testing per
			ISO23908.
Sterilization	EO Sterilization	EO Sterilization	Same
method and SAL	$SAL = 10^{-6}$	$SAL = 10^{-6}$	

Discussions of differences in technological characteristics

-The needle length of subject device is within the range of predicate device. The difference needle length does not affect the effectiveness and safety of the device.

- The syringe bodies of subject device and predicate device have material differences. This difference does not affect the effectiveness and safety of the device. The biocompatibility tests conducted demonstrate the safety of subject device.

- The operating procedure is the same as predicate device. The subject device has additional safety shield to protect against sharps injury. The sharps protection feature is addressed through testing per ISO23908. This difference does not impact the safety and effectiveness of the device.

8 Performance Testing Summary

The bench testing performed verifies that the performance of the subject device is substantially equivalent in terms of critical performance characteristics to the predicate device. These tests include:

- •ISO 7886-1:2017, Sterile hypodermic syringes for single use Part 1: Syringes for manual use
- •ISO 9626:2016, Stainless steel needle tubing for the manufacture of medical devices Requirements and test methods
- •ISO 7864:2016, Sterile hypodermic needles for single use Requirements and test methods
- •ISO 23908:2011, Sharps injury protection Requirements and test methods Sharps protection features for single-use hypodermic needles, introducers for catheters and needles used for blood sampling
- •USP<85> Bacterial Endotoxin Test

Biocompatibility

In accordance with ISO 10993-1 the device is classified as External communicating device, Blood path, indirect, with limited contact duration (\leq 24h). The biosafety tests that required consideration were validated:

- ISO 10993-5:2009 Biological Evaluation of Medical Devices -- Part 5:Tests for in Vitro Cytotoxicity
- ISO 10993-10:2010 Biological Evaluation of Medical Devices -- Part 10: Tests for Irritation and Skin Sensitization

- ISO 10993-11:2006, Biological evaluation of medical devices Part 11: Tests for systemic toxicity-Acute systemic toxicity
- ISO 10993-4:2017, Biological evaluation of medical devices Part 4: Selection of tests for interactions with blood
- ISO 10993-7:2008, Biological evaluation of medical devices Part 7: Ethylene oxide sterilization residuals
- USP42-NF37<151> Pyrogen Test
- USP<788> Particulate matter in injections

Sterility, Shipping, and Shelf-Life

- ISO 11135:2014, Sterilization of health-care products Ethylene oxide Requirements for the development, validation and routine control of a sterilization process for medical devices
- Package integrity testing, after environmental conditioning and simulated transportation in accordance with ASTM D4169-16, was conducted on the final, packaged, and sterile devices. All packaging deemed acceptable for protection of product and sterility maintenance.
- Sterile Barrier Packaging Testing performed on the proposed device:
 - Seal strength ASTM F88/F88-15
 - Dye penetration ASTM F1929-15
 - Sterility test USP38-NF33_C71
- Shelf life of 5 years is validated using the FDA recognized standard ASTM F1980-16 Standard Guide for Accelerated Aging of Sterile Barrier Systems for Medical Devices

9 Conclusion

Based on the information provided within this 510(k) submission, the differences between the predicate and the subject device do not raise any new or different questions of safety or effectiveness. The proposed subject device is substantially equivalent to the predicate device and is as safe and as effective as the legally marketed predicate device.