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6th India -Japan Medical Products Regulatory Symposium,
2023 Feb. 1

Updates on Medical Device and IVD Regulation in Japan

- Amendment of the Pharmaceuticals and Medical Devices Act（PMD Act）
- Software as a Medical Device(SaMD)

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Legal Structure for Medical Device

Act	Pharmaceuticals and Medical Devices Act (**PMD Act**), 1960
Cabinet Order	Cabinet Order on PMD Act, 1961
Ministerial Ordinance	Ministerial Ordinance on PMD Act, 1961 GCP/GLP for medical device, 2005 Good Vigilance Practice (GVP) Quality Management System (QMS) etc.
Ministerial Notification	Essential Principles Certification criteria for class II/III devices Classification of medical devices etc.
Notification	Information on application procedures Guidelines for clinical evaluation etc.

Definition of Medical Device in PMD Act

Medical devices are machinery or apparatus, etc. **intended for** use in the diagnosis, treatment or prevention of disease in humans or animals or **intended to** affect the structure or functions of the human or animal body, which are specified by Cabinet Order

Article 2.4, PMD Act

Intended use and claim

Image of PC screen

Perform stress analysis in various objects

Diagnose the risk of bone fracture from the results of stress analysis

Not intended to diagnose human disease

Intended to diagnose human disease

Not MD

MD

Medical indications such as diagnosis of bone fracture risk can not be claimed

Analytical performance to enable diagnosis of bone fracture risk should be evaluated

Medical Device Regulations in Japan

Classification	Class I	Class II	Class III	Class IV
Category	General MDs	Controlled MDs	Specially controlled MDs	
Premarket regulation	Self-declaration	Third party certification	MHLW approval (PMDA review)	
Example		 	 	  
Post market safety (vigilance/surveillance)	PMDA and MHLW			

Special Approval for Emergency on Remdesivir

2020 May 2nd — **Cabinet Order was amended to expand the scope of Special Approval for Emergency to include the drugs for novel coronavirus**

Novel Influenza + **COVID-19**

May 4th — **Regulatory Submission by Gilead Sciences**

PMDA prepared the report for the available information, approval conditions etc..

May 7th — **Discussed by Pharmaceutical Affairs and Food Sanitation Council of the MHLW**

Special Approval for Emergency on Remdesivir

https://www.pmda.go.jp/english/int-activities/0004.pdf

Under article 14-3 of the PMD Act, a certain medical product may be approved under when

① an emergency situation requires an unapproved medical product to be used to prevent damage to the public health caused by the spread of diseases

② such emergency situation cannot be managed appropriately by any means other than the use of the unapproved product, and

③ such product is legally available in a country with a regulatory system for medical products that is equivalent to Japan

Amendment of Pharmaceuticals and Medical Devices Act (PMD Act)

Aim

- **to enact a mechanism of early approval**
  conditional, time-limited marketing approval may be granted in emergencies if the efficacy of the pharmaceutical, medical device, or regenerative medicine is estimated and safety is confirmed
- to enact a mechanism of electronic prescriptions

Outline

1. Marketing Approval in Emergencies

New mechanisms to enable early marketing approval in emergencies.

(1) Eligibility of pharmaceutical, etc. to which the early approval is applicable

A pharmaceutical, etc. that needs to be used urgently in order to prevent the spread of a disease or other health hazard that could seriously affect the lives and health of people is eligible for early approval if there is no alternative existing treatment.

(2) Application standards

Assuming that safety has been confirmed, approval may be granted if the efficacy of the pharmaceutical, etc. has been estimated.

(3) Conditions and term of approval

As approval is granted at the early stage where efficacy has been estimated, conditions are provided to ensure the proper use of the pharmaceutical, etc. and restrictions are set in place that limit the duration of the approval to a short term.

(4) Special measures to expedite review process

Special measures are introduced for GMP inspections, national verifications as well as regulations on containers and packaging of the pharmaceutical, etc., in order to expedite review process for approval.

2. Creation of a mechanism for electronic prescriptions

Effective Date

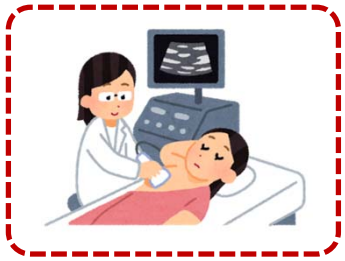
The effective date (1. Marketing Approval in Emergencies): 20 May 2022

Transition of regulations for SaMD in Japan

before November 2014

program which determines performance of medical device

install



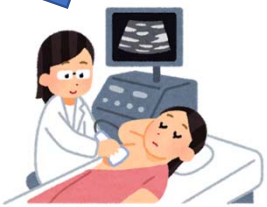
Medical device
（tangible object including software）

after November 2014

program which determines performance of medical device

Medical device（software itself）

install

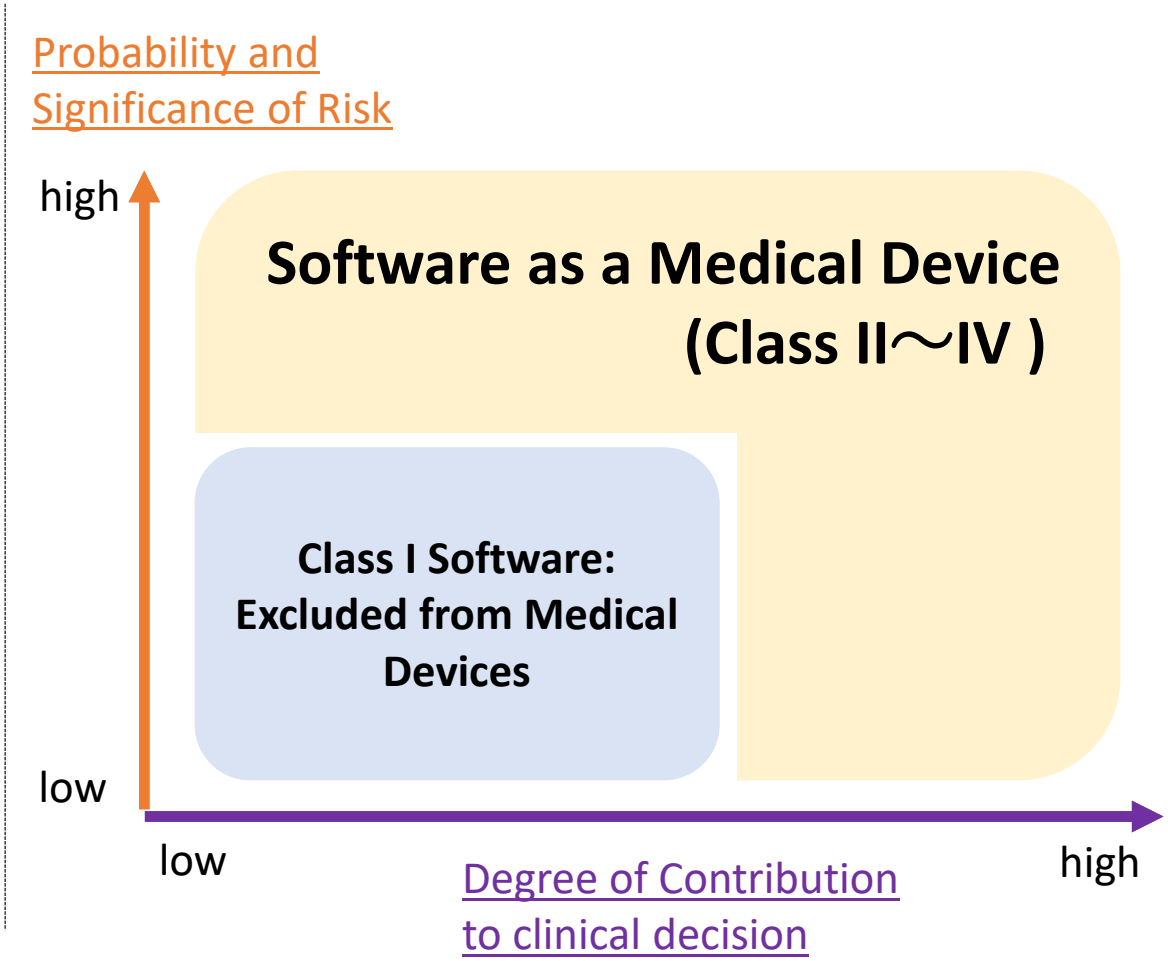


MD software classified as Class I is **NOT** subjected to regulations on PMD-Act

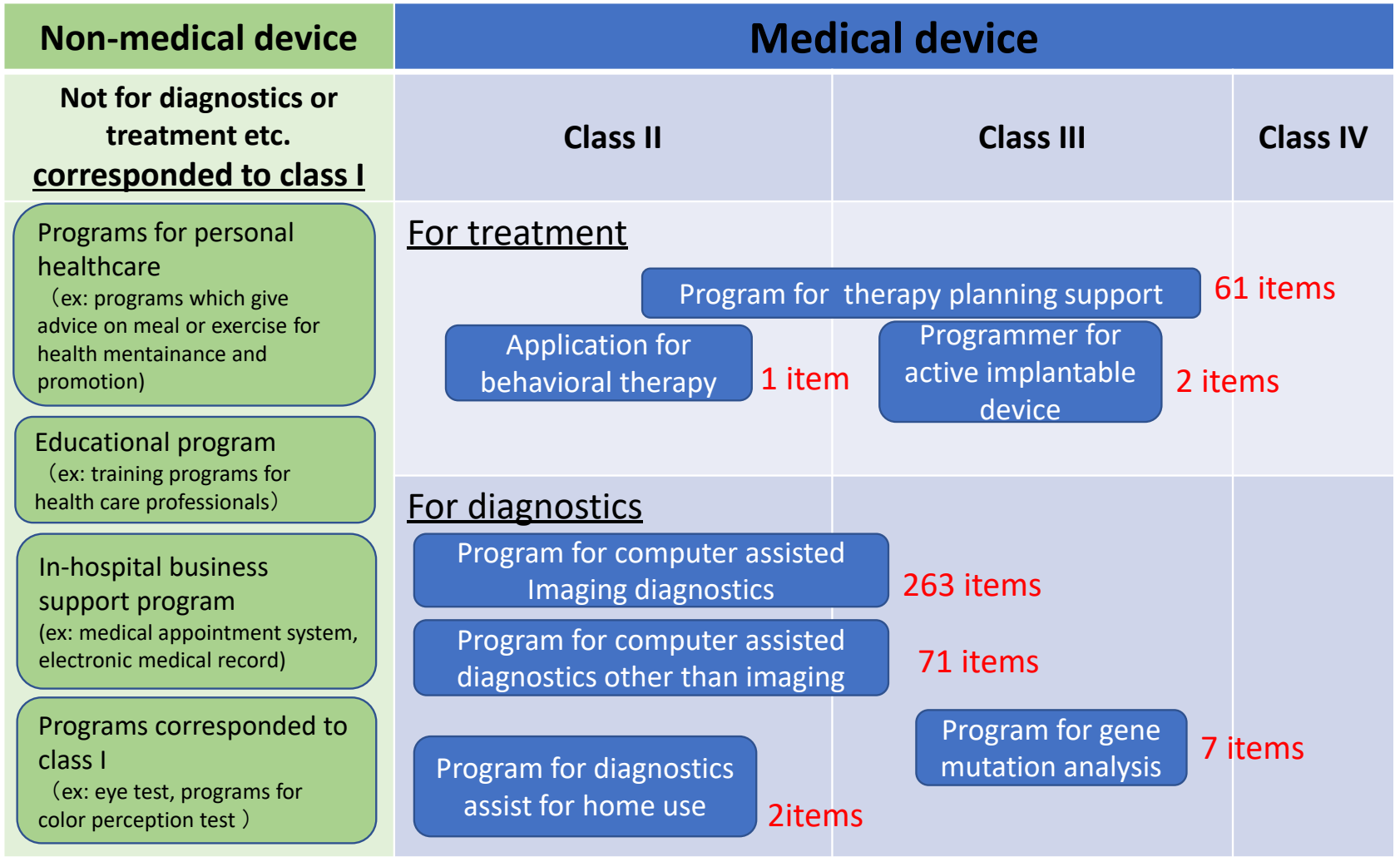
The kind of Software treated as a Medical Device in Japan

Not Medical Device

Not used for prevention, diagnosis or treatment of diseases

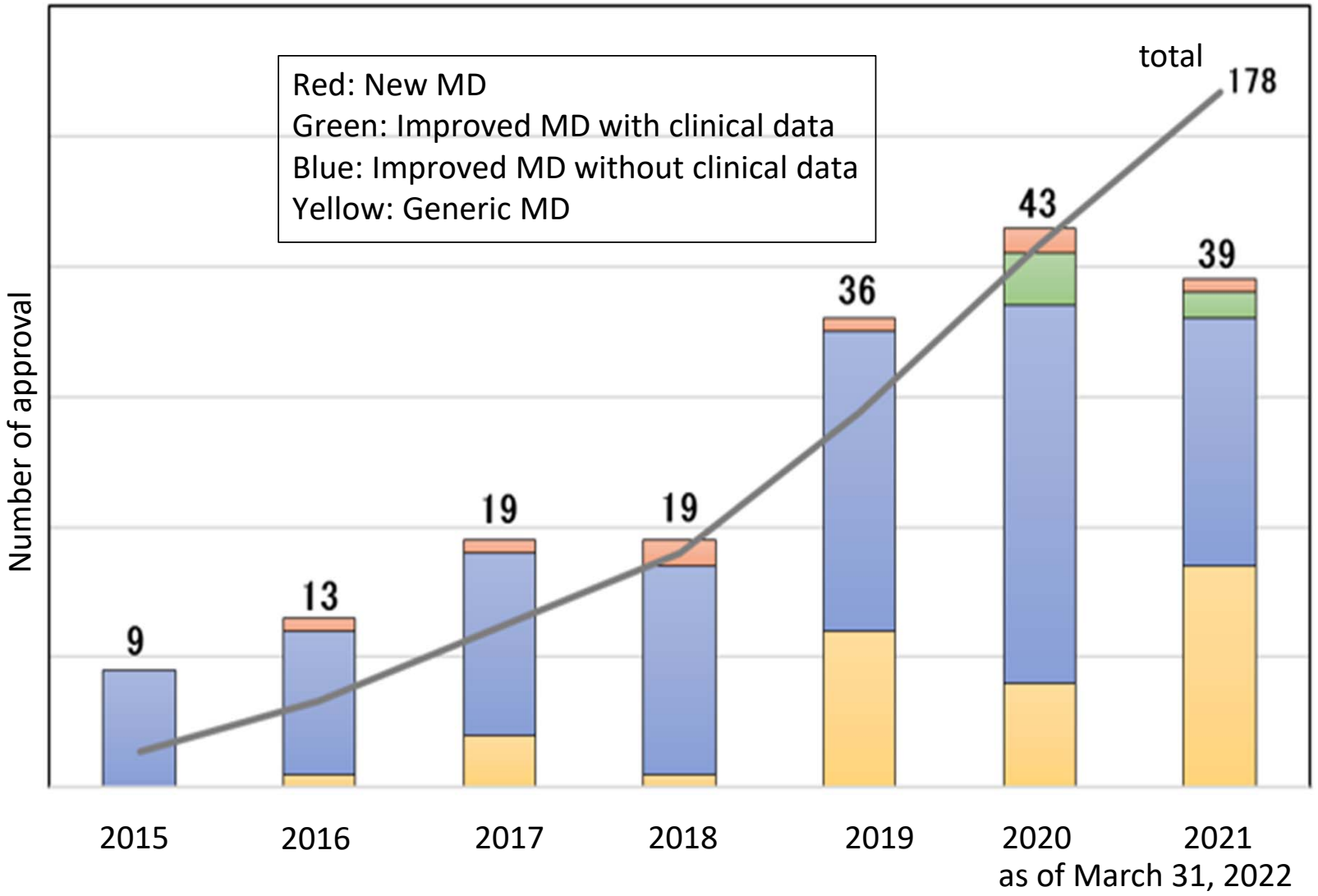


Overview of SaMD regulations



as of March 31, 2022

Transition of number of approved SaMD



Examples of approved SaMD

（Ex.1）

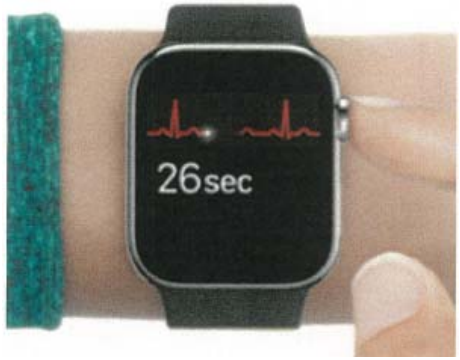
Digital Therapeutic App for Hypertension
（approved on Apr. 2022）

→ Behavioral Approaches to Lifestyle Modification

（Ex. 2）

ELECTROCARDIOGRAPH SOFTWARE FOR OVER-THE-COUNTER USE
（approved on Sep. 2022）

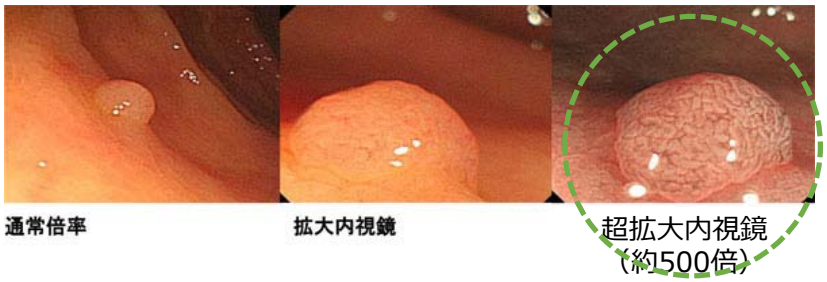
→ can provide information for identifying cardiac arrhythmias and encourage medical examination



（Ex.3）

AI-Equipped Colorectal Endoscopy Diagnosis Support Software
（approved on Dec. 2020）

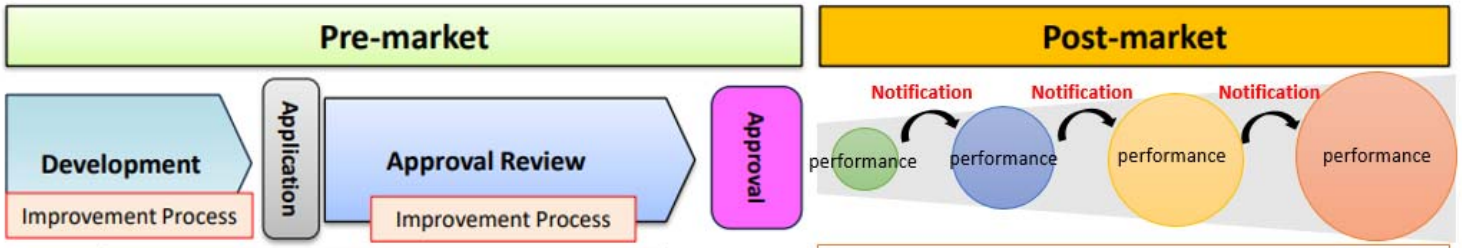
→ Support for detection and differentiation of lesions in colonoscopy



Utilization of Post-Approval Change Management Protocol (PACMP)
～Challenge to accept “Plasticity” in regulation～

Approval review process which enables continuous improvement of performance of SaMD using AI was introduced in September, 2020.

- Changes of performance must be in one-direction (improvement) and be managed by MAH.
- MAH may develop a process which ensures such performance changes “Improvement Process”, and submit to the approval review process.



“Improvement Process” is developed and reviewed in the approval review process.

Post-market changes in line with the Improvement Process can be made by notification, which does not require approval process.

*Compliance is checked in the audit.

“DASH for SaMD”

November 2020

DX(Digital Transformation) Action Strategies in Healthcare for SaMD (Software as a Medical Device)

1. Early recognition of research seeds and publication of the review guide

a. Assess seeds of technology in the early stage of research.
b. Organize and publish the review guide regarding characteristics of SaMD.

2. Centralization of the consultation contact desk

c. Centralize consultation service (April 1, 2021)
d. Marshal and publish consultation case examples
https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000179749_00004.html

3. Review system applicable to unique characteristics of SaMD

e. Carry out efficient review based on characteristics of SaMD
f. Utilize the Post-Approval Change Management Protocol (PACMP) scheme
g. Consider establishing the innovative SaMD designation program

4. Enhancement of structure for early realization

h. Establish new office specialized in SaMD in MHLW and PMDA (April 1, 2021)
i. Establish Expert Examination Committee for SaMD in the Pharmaceutical Affairs and Food Sanitation Council (April 1, 2021)
j. Establish collaborative forum among regulator, academia and industry (February 4, 2022)
k. Enrich published database of approval cases
https://www.pmda.go.jp/PmdaSearch/kikiSearch/

Thank you for your attention

MHLW Website
https://www.mhlw.go.jp/english/

PMDA Website
https://www.pmda.go.jp/english/index.html