Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

GHWP
26th Annual Meeting

Working Group1 Updates

Feb. 15th, 2023

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Membership Update

Working Group 1

Chair

Dr. Seil Park

Ministry of Food and Drug Safety, Korea

Co-Chair

Ms. Mandy MyoungShim Kim

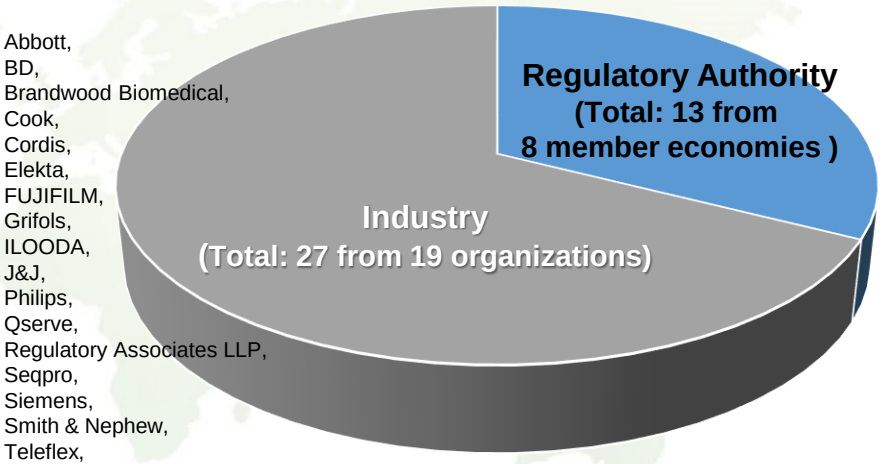
Johnson & Johnson MedTech

Secretary

Ms. Anna Yesong Park

Johnson & Johnson MedTech

WG1 Members
(Total: 40)



Abbott,
BD,
Brandwood Biomedical,
Cook,
Cordis,
Elekta,
FUJIFILM,
Grifols,
ILOODA,
J&J,
Philips,
Qserve,
Regulatory Associates LLP,
Seqpro,
Siemens,
Smith & Nephew,
Teleflex,
3M,
Varian,

Indonesia,
Kazakhstan,
Kenya,
Oman,
Saudi Arabia,
South Korea,
Tanzania,
US

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Items

WG1, 2020-2022

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Plan

(WG1, 2020-2022)

Work Item	Deliverables	Key Milestones & Progress
Revisit WG1 documents	Revise 'Handbook for Approval of Patient-matched Medical Devices Using 3D Printers'	• Revision completion (2020) ✓ Referred IMDRF guidance document to harmonize terms and definitions ✓ Added section of reference ✓ Added additional points of consideration and standardized terminology
	Revise 'Guidance for Minor Change Reporting' ; comparing to AHWP/WG2-WG1-WG3/F001:2019 (Categorisation of Changes to a Registered Medical Device)	• Revision completion (2020) ✓ Added section of scope based on AHWP/WG2-WG1-WG3/F001:2019 ✓ Revised ambiguous terminology and added additional explanation
Document Development of EUA	Support document development driven by the joint WG1-3 for EUA(Emergency Use of Authorization)	• Document development completion (2021) ✓ Investigated and shared the status of EUA in AP economies ✓ Developed 'Regulatory mechanism for Medical Devices including In Vitro Diagnostic Medical Devices and Software as Medical Devices during a public health emergency'

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Plan

(WG1, 2020-2022)

Work Item	Deliverables	Key Milestones & Progress
Revisit documents co-worked by WG1,2, and 3	Revise 'Categorisation of Changed to a Registered Medical Device'	• Revision completion (2022), expected to be endorsed ✓ Added examples, especially in AI, Software, and Cybersecurity ✓ Added references ✓ Corrected flow charts of changes
	Revise 'Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU) (AHWP/WG1-WG2-WG3/F002: 2019) Review the opportunity to modify or obsolete on 'Regulatory and treatment of e-IFU and e-Label of Medical Devices – Review of International Practice' (AHWP/WG1-WG2/F001:2017)	• Discussed to find out how the current regulations/guidelines are described in regards to user limitation, scope, benefit, and implementation of eIFU • Developed the survey questions for current approaches • Circulated survey and collected feedback from WG1,2, and 3 jurisdictions • Composed drafting committee • Plan to revise the document by 2023

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Activities

WG1, 2022

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

2022 Activities

Working Group 1

- 2022-Feb
- 2022-Mar)
- 2022-Apr)
- 2022-Apr,May)
- 2022-Jul)
- 2022-Aug)
- 2022-Aug)
- 2022-Sep)
- 2022-Nov)
- 2022-Dec)

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

2022 Activities

Working Group 1

- ✓ WG1 regular meeting (bi-monthly)
- ✓ Joint meeting with WG2/3
- ✓ Sub-work item meeting (monthly)
- ✓ WG TC call

2022-Feb)	WG1 plan & direction discussion meeting
2022-Mar)	WG1 Work item scope & direction discussion meeting
2022-Apr)	NWIP alignment for <revisit “e-IFU regulatory requirements” document> & Pre-survey form creation
2022-Apr,May)	NWIP alignment for <revisit “Change categorization” document>, NWIP form submission/TC approval
2022-Jul)	WG1 Meeting, 1st Joint Meeting with WG2 for <revisit “Change categorization” document>
2022-Aug)	e-IFU related survey results consolidation, NWIP form submission/TC approval
2022-Aug)	2nd Joint Meeting with WG2 for <revisit “Change categorization” document>
2022-Sep)	WG1 Meeting & “Change categorization” document draft circulation
2022-Nov)	Drafting Committee Establishment for “e-IFU regulatory requirements” document revision
2022-Dec)	WG1 Year-End Meeting, Finalization of <revisit “Change categorization” document>

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Work Items Update

WG1, 2022

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Item for Endorsement

Working Group 1

WG1-2-3 Joint Work Item

Revisit a GHWP Document "Categorisation of Changes to a Registered Medical Device, AHWP/WG2-WG1-WG3/F001:2019"

< Deliverables>

Update examples, especially in AI, Software, and Cybersecurity from WG1, 2, and 3 referring to various jurisdictions, including non-member economies across the globe

< Key Milestone>

- Submittd NWIP form
- Collect examples from WG1,2, and 3
- Aligned the scope, Shared action items/plan and interim output with WGs in regular meetings
- Revised GHWP Guidance, Submitted the proposed doc. for endorsement

Proposed Work Item for Endorsement

Revisit a GHWP Document "Categorisation of Changes to a Registered Medical Device"

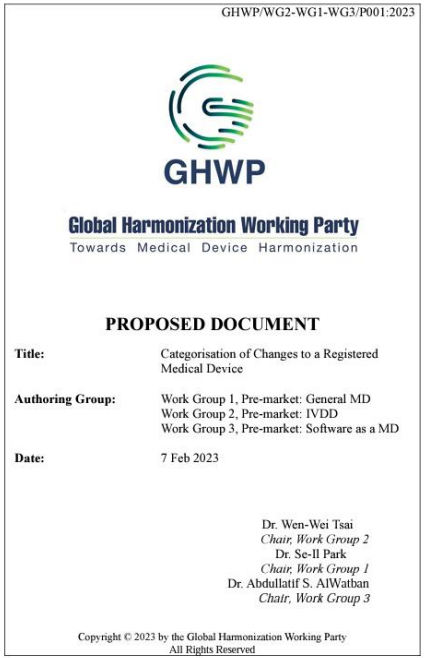
Examples Added to 5.4.4 Changes to Software

Non-significant

- Changes in operating environment, graphic interface, languages & translation, or storage methods w/o its safety and performance
- Changes in software to strengthen the cybersecurity such as adding encryption, passcode requirements, adding timeout, or changing the access of restricted user
- Changes in software to disallow use of specific characters to prevent ID barcode info truncation
- Changes in software to correct fluid bottle size parameter
- Changes in IVD analyzer software to prevent data merging or correct requirements to modify code in the control unit w/o modifying the core algorithm
- Changes in training dataset of a Machine Learning MD Software w/o any changes to labeled product design specification

Significant

- Changes in software to add product indication for use or its operating principles including diagnostic algorithm



GHWP/WG2-WG1-WG3/P001:2023

GHWP

Global Harmonization Working Party

Towards Medical Device Harmonization

PROPOSED DOCUMENT

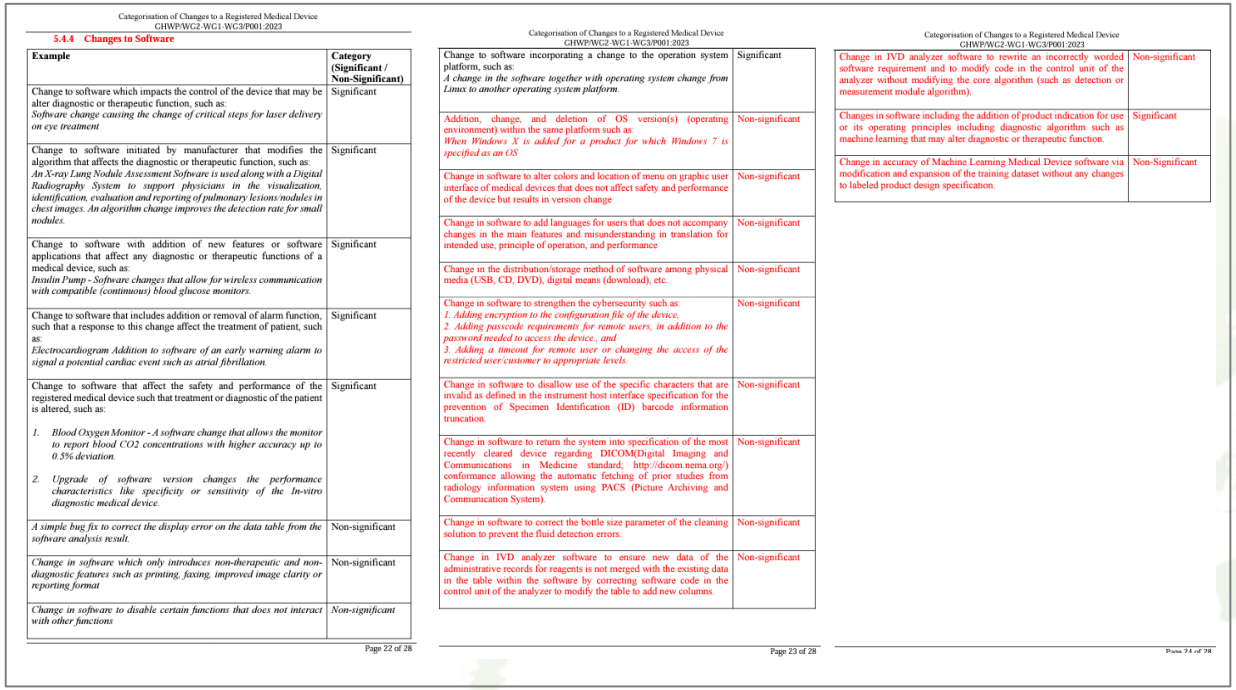
Title:	Categorisation of Changes to a Registered Medical Device
Authoring Group:	Work Group 1, Pre-market: General MD Work Group 2, Pre-market: IVDD Work Group 3, Pre-market: Software as a MD
Date:	7 Feb 2023

Dr. Wen-Wei Tsai
Chair, Work Group 2
Dr. Se-Il Park
Chair, Work Group 1
Dr. Abdullatif S. AlWatban
Chair, Work Group 3

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Item for Endorsement

Revisit a GHWP Document "Categorisation of Changes to a Registered Medical Device"



Categorisation of Changes to a Registered Medical Device
GHWP/WG2-WG1-WG3/P001:2023

5.4.4 Changes to Software

Example	Category (Significant / Non-Significant)
Change to software which impacts the control of the device that may be alter diagnostic or therapeutic function, such as: *Software change causing the change of critical steps for laser delivery on eye treatment*	Significant
Change to software initiated by manufacturer that modifies the algorithm that affects the diagnostic or therapeutic function, such as: *An X-ray Lung Nodule Assessment Software is used along with a Digital Radiography System to support physicians in the visualization, identification, evaluation and reporting of pulmonary lesions/nodules in chest images. An algorithm change improves the detection rate for small nodules.*	Significant
Change to software with addition of new features or software applications that affect any diagnostic or therapeutic functions of a medical device, such as: *Insulin Pump - Software changes that allow for wireless communication with compatible (continuous) blood glucose monitors.*	Significant
Change to software that includes addition or removal of alarm function, such that a response to this change affect the treatment of patient, such as: *Electrocardiogram Addition to software of an early warning alarm to signal a potential cardiac event such as atrial fibrillation.*	Significant
Change to software that affect the safety and performance of the registered medical device such that treatment or diagnostic of the patient is altered, such as: 1. *Blood Oxygen Monitor - A software change that allows the monitor to report blood CO2 concentrations with higher accuracy up to 0.5% deviation.* 2. *Upgrade of software version changes the performance characteristics like specificity or sensitivity of the In-vitro diagnostic medical device.*	Significant
A simple bug fix to correct the display error on the data table from the software analysis result.	Non-significant
Change in software which only introduces non-therapeutic and non-diagnostic features such as printing, faxing, improved image clarity or reporting format	Non-significant
Change in software to disable certain functions that does not interact with other functions	*Non-significant*

Page 22 of 28

Categorisation of Changes to a Registered Medical Device
GHWP/WG2-WG1-WG3/P001:2023

Change to software incorporating a change to the operation system platform, such as: *A change in the software together with operating system change from Linux to another operating system platform.*	Significant
Addition, change, and deletion of OS version(s) (operating environment) within the same platform such as: *When Windows X is added for a product for which Windows 7 is specified as an OS*	Non-significant
Change in software to alter colors and location of menu on graphic user interface of medical devices that does not affect safety and performance of the device but results in version change	Non-significant
Change in software to add languages for users that does not accompany changes in the main features and misunderstanding in translation for intended use, principle of operation, and performance	Non-significant
Change in the distribution/storage method of software among physical media (USB, CD, DVD), digital means (download), etc.	Non-significant
Change in software to strengthen the cybersecurity such as: *1. Adding encryption to the configuration file of the device,* *2. Adding passcode requirements for remote users, in addition to the password needed to access the device., and* *3. Adding a timeout for remote user or changing the access of the restricted user/customer to appropriate levels.*	Non-significant
Change in software to disallow use of the specific characters that are invalid as defined in the instrument host interface specification for the prevention of Specimen Identification (ID) barcode information truncation.	Non-significant
Change in software to return the system into specification of the most recently cleared device regarding DICOM(Digital Imaging and Communications in Medicine standard; http://dicom.nema.org/) conformance allowing the automatic fetching of prior studies from radiology information system using PACS (Picture Archiving and Communication System).	Non-significant
Change in software to correct the bottle size parameter of the cleaning solution to prevent the fluid detection errors.	Non-significant
Change in IVD analyzer software to ensure new data of the administrative records for reagents is not merged with the existing data in the table within the software by correcting software code in the control unit of the analyzer to modify the table to add new columns.	Non-significant

Page 23 of 28

Categorisation of Changes to a Registered Medical Device
GHWP/WG2-WG1-WG3/P001:2023

Change in IVD analyzer software to rewrite an incorrectly worded software requirement and to modify code in the control unit of the analyzer without modifying the core algorithm (such as detection or measurement module algorithm).	Non-significant
Changes in software including the addition of product indication for use or its operating principles including diagnostic algorithm such as machine learning that may alter diagnostic or therapeutic function.	Significant
Change in accuracy of Machine Learning Medical Device software via modification and expansion of the training dataset without any changes to labeled product design specification.	Non-Significant

Page 24 of 28

References

- Japan: PMDA document (PSEHB/MDED Notification No. 1020-1) - Handling of procedures for minor changes made in association with partial changes of medical device programs – October 20, 2017
- US: Guidance for Industry and FDA Staff – Deciding When to Submit a 510(k) for a Software Change to an Existing Device – October 25, 2017
- Korea: Guidance for Review and Approval of Artificial Intelligence-Enabled Medical Devices, May-2022

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Proposed Work Item for eIFU

Working Group 1

WG1-2-3 Joint Work Item

Revisit a GHWP Document 'Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU):2019'

< Deliverables >

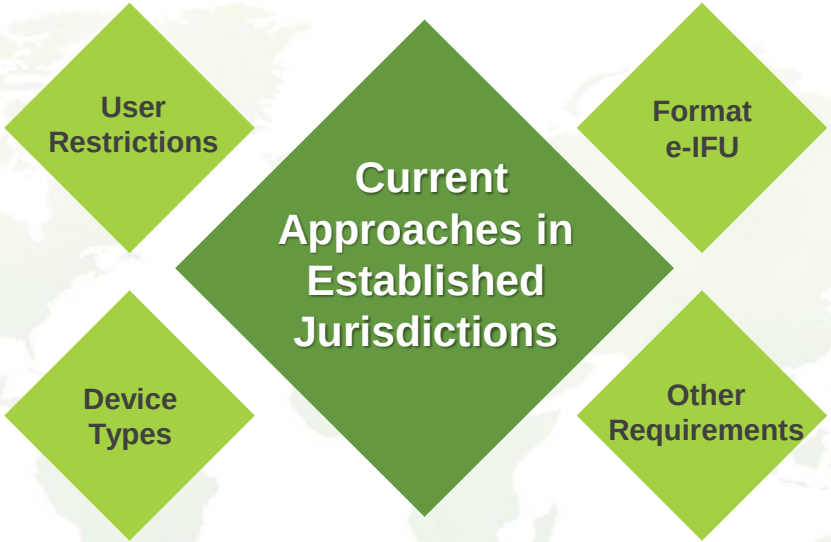
Revisit WG1 Document to see the opportunity to modify or obsolete, reviewing consideration on risk factors and current approaches in established jurisdictions

< Key Milestone>

- Submitted NWIP form
- Developed the survey questions for current approaches
- Circulated survey and collected the feedback of WG1,2, and 3 jurisdictions
- Composed drafting committee

Proposed Work Item (ongoing)

Revisit "Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU)"



e-IFU may be permitted:
- To all users, or none
- for Professional Users only

e-IFU may be permitted:
- For all devices, or not at all
- Only for professional use devices
- Only for specific device types e.g.:
- implants
- For software devices
- For devices with a screen
- Fixed installed devices

- On hard media such as DVDs, USB
- As downloadable document (e.g. PDF)
- As web page
- Embedded in a device and displayed through user interface

- Availability of paper copy on request

Proposed Work Item (ongoing)

Revisit "Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU)"

Risk Factors of e-IFU Implementation

Quality Systems	Physical Impact	Cyber Risks	Paper Copies	Online Supply	Content
• Validation of e-IFU • Accuracy • Languages and translations • Method of delivery and user instructions on how • Change management • Identification of versions and… • avoiding mix ups	• Sterility revalidation if paper copy is removed • Advice on location of e-IFU on physical packaging	• Online security – cannot be removed or replaced. • Archival procedures • Privacy – e.g. impact of cookies placed on visit to e-IFU website	• Timeline for provision on request • Ensuring equivalence of paper and e-IFU	• Need to be easy to find by simple web search, e.g. <manufacturer name> + <device name> + "IFU"	• Same content requirements and use standard symbols as for paper labelling

Proposed Work Item (ongoing)

Revisit "Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU)"

Proposed Work Item (ongoing)

Revisit "Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU)"

Survey Circulation

User scope of eIFU, Device Scope of e-IFU, e-IFU formats, Risk mitigation, QMS requirements, Hard copy supply and equivalence, and Contents of e-IFU

Survey Template - eIFU

Item	Question	Name and Regulation deployment in your jurisdiction. (Country, Y/N)	If Y, please input your regulation	Agree to proposal from WG? If no, please input your suggestions/thoughts
User scope of eIFU	For which users may an e-IFU be provided? • All? • Professional Only?			
Device Scope of e-IFU	For which device types is it permissible to provide an e-IFU. E.g.: • All devices • Software devices (SaMD) • Implants • Specific electronic devices such as: • Fixed installations • Devices with screens			
e-IFU formats	Which Formats are permitted? (e.g. PDF, HTML, DOC.			
Risk mitigation	How are risks mitigated including: physical risks and cyber risks			
QMS requirements	What are expectations for: • Validation • Version control • Archiving • Continuous lifetime availability			
Hard copy supply and equivalence	What are requirements for availability of paper version including: • Timeline • Equivalence • Download/online versions • Avoidance of version mix ups			
Content	What is the guidance on e-IFU content			

Item	e-IFU related Questions	EU	Japan	India	HongKong	Taiwan	Korea
User scope of eIFU	For which users may an e-IFU be provided? •All? •Professional Only?	Professional only And for IVD, exclusive of near-patient testings Related regulation (EU) 2021/2226 Article 3(2) Manufacturers may provide instructions for use in electronic form instead of in paper form for the devices listed in paragraph 1 under the following conditions: (a)the devices and accessories are intended for exclusive use by professional users; and (b)the use by other persons is not reasonably foreseeable. IVDR Annex I 20.1(f) When the device is intended for professional use only, instructions for use may be provided to the user	Hospital use only Related regulation: -Medical Devices Act (PMD Act) -Guidance on package insert digitization requirements	All (Not specified)	No specific regulation on eIFU being developed	Not clearly specified, but professional use inclination Related regulation: -Medical Devices Act -Medical Device Product Items Whose Instructions May Be Replaced by Electronic Instructions and Medical Device Firms Shall Indicate the Particulars on the Labels or Package	Yes. Middle Class Devices only used in hospitals. Related regulation: Article 22 of Medical Device Act.

*Covered Jurisdictions: EU, Japan, India, Hong Kong, China, Taiwan, Australia, Korea, US

Proposed Work Item (ongoing)

Revisit “Principles of Regulatory Requirements for Electronic Instructions for Use (eIFU)”

Progress & Plans

Global Harmonization Working Party
GHWP Towards Medical Device Harmonization

Thank You.

GHWP 26th Annual Meeting

Working Group1 Updates