HEALTH SCIENCES AUTHORITY

REGULATORY GUIDANCE

March 2023

MEDICAL DEVICE GUIDANCE

GN-21: Guidance on Change Notification for Registered Medical Devices

Revision 5

HSA
Health Sciences Authority

CONTENTS

PREFACE

R3.1 ►This document is intended to provide general guidance. Although we have tried to ensure that the information contained here is accurate, we do not, however, warrant its accuracy or completeness. The Health Sciences Authority (HSA) accepts no liability for any errors or omissions in this document, or for any action/decision taken or not taken as a result of using this document. The information contained in this document should not be a substitute for professional advice from your own professional and healthcare advisors. ◄

REVISION HISTORY

Guidance Version (Effective Date) *[3 latest revisions]*	Revision
R4.7 ► GN-21: Revision 4.7 (17 February 2020)	R4.7
R4.8 ► GN-21: Revision 4.8 (22 March 2021)	R4.8
R4.9 ► GN-21: Revision 4.9 (25 April 2022)	R4.9
R5 ► GN-21: Revision 5 (07 March 2023)	R5
Changes and updates made in each document revision are annotated with or within the arrow symbol "►". Deletions may not be shown.	

1. INTRODUCTION

1.1. Purpose

Medical devices undergo changes as part of their product life cycle. This guidance document is intended to aid registrants in determining whether a Change Notification has to be submitted for a medical device that is registered on the Singapore Medical Device Register (SMDR). Under the Health Products (Medical Devices) Regulations 2010 (*Regulations*), registrants are required to notify changes concerning registered medical devices to the Authority.

1.2. Background

Medical devices are classified into four risk classes (A to D) based on the classification rules set out in *GN-13: Guidance on the Risk Classification of General Medical Devices* and *GN-14: Guidance on the Risk Classification of In Vitro Diagnostic Medical Devices*. Class A represents the lowest risk medical devices and Class D represents the highest risk medical devices.

These guidelines to Change Notification are based on the principles of safety, quality and efficacy of medical devices supplied in Singapore. Changes to a medical device can affect its safety, quality or efficacy and must be approved prior to the modified device being supplied in Singapore, unless otherwise indicated.

1.3. Scope

This guidance document applies to all medical devices registered on the SMDR. It sets out points for consideration by the registrant when a registered medical device is in the process of modification. Owing to the various possible scenarios for changes made to a device, it is not the intention of this guidance document to describe every permutation and type of change that can occur. The registrant and/or the product owner may contact the Medical Devices Branch, for further clarification regarding the classification of specific changes to a registered medical device.

This guidance document is also applicable to situations when a registered device undergoes any changes or proposed changes, including labelling changes, as a result of a reportable Adverse Event (AE) or an on-going Field Safety Corrective Action (FSCA).

1.4. Definitions

Definitions that do not indicate they are set out in the Health Products Act (*Act*) or *Regulations* are intended as guidance in this document. These definitions are not taken verbatim from the above legislation and should not be used in any legal context. These definitions are meant to provide guidance in layman terms.

ACCESSORY: An article that is intended specifically by its product owner to be used together with a particular medical device to enable or assist that device to be used in accordance with its intended purpose. An accessory typically is intended to be used for one or more of the purposes as described in the definition of medical device and therefore should be considered a medical device.

CONTROL MECHANISM: for the purpose of this guidance document, a means for verifying or checking that the specifications or outputs of the medical device meet a standard or predetermined result.

LABEL (*as set out in the Act*): in relation to a health product or an active ingredient, means any written, printed or graphic representation that appears on or is attached to the health product or active ingredient or any part of its packaging, and includes any informational sheet or leaflet that accompanies the health product or active ingredient when it is being supplied.

INTENDED PURPOSE/INTENDED USE *(as set out in the Regulations)*: in relation to a medical device or its process or service, means the objective intended use or purpose, as reflected in the specifications, instructions and information provided by the product owner of the medical device.

MEDICAL DEVICE: means a medical device as described in the First Schedule of the Act.

OPERATING PRINCIPLE: For the purpose of this guidance document, the means by which a medical device produces or brings about a desired or appropriate effect.

PRODUCT OWNER *(as set out in the Regulations)*: in relation to a health product, means a person who —

- supplies the health product under his own name, or under any trade mark, design, trade name or other name or mark owned or controlled by him; and
- is responsible for designing, manufacturing, assembling, processing, labelling, packaging, refurbishing or modifying the health product, or for assigning to it a purpose, whether those tasks are performed by him or on his behalf.

QUALITY MANAGEMENT SYSTEM: for the purpose of this guidance document, means certification to ISO 13485 or its equivalent.

REGISTRANT (*as set out in the Act*): in relation to a registered health product, means the person who applied for and obtained the registration of the health product under the *Act*.

R4 ► INDIRECT CONTACT: In relation to the nature of body contact of medical device, includes devices that contact the blood path at one point and serve as a conduit for entry into the vascular system. E.g. blood transfusion tubes, blood bags, etc. ◄

2. HOW TO USE THIS GUIDANCE

When several simultaneous changes are being implemented on a registered device, this guidance document should be used to assess each change

separately. If a Change Notification is required, the registrant shall describe how the modified device differs from the previously registered device (or device type) using Annex 2.

Registrants are reminded that the determination of documents and the category of Change Notification (e.g. notification, technical) should be made through reference to all change types for the registered device included in the application. Changes to accessories of registered medical devices will also come within the purview of this document.

Some changes that will NOT qualify for Change Notification and require the submission of a NEW Pre-market Product Registration include:

- Change to the intended purpose of a registered medical device;
- Change to the risk classification of a registered medical device;
- Addition of model(s) that do not fulfil the grouping criteria, including permissible variants, as listed in the GN-12 guidance documents on Grouping of Medical Devices for Product Registration;
- Change to the medicinal substance in a device that incorporates a medicinal product in an ancillary role;
- R4 ► Addition of medical devices with device proprietary names different from the registered devices, into a device listing.

  Unless the devices with different proprietary names qualify to be listed together under one SMDR listing based on GN-12 guidance documents on Grouping of Medical Devices for Product Registration.

The registrant and/or the product owner should contact the Medical Devices Branch, if there are any queries on whether a change in the registered device may require a new product registration.

CATEGORIES OF CHANGES

Changes to registered medical devices that require the submission of a Change Notification are classified into four categories namely:

1) **Technical Changes** for Class C and D medical devices affect the safety, quality or efficacy of these medical devices. These require HSA's approval prior to implementation of the change(s) in Singapore.

2) **Review Changes** (closed list of changes) for Class B medical devices affect the safety, quality or efficacy of these medical devices. These require HSA's approval prior to implementation of the change(s) in Singapore and are as follows:
   (i) Change(s) to indications for use of the registered medical device (except reduction of indications for use not arising due to device safety, quality or efficacy concerns);
   (ii) R4 ► Addition of new model(s) (except addition of new models falling under 6Aii/6Aiii/6Aiv of the Flowchart 6A) to a registered medical device listing;
   (iii) R4.8► Removal and/or revision of warnings, precautions, contraindications and/or adverse events ◄;
   (iv) R4.9► Modification of approved method of use. ◄

3) **Administrative Changes** include:
   R4.3 ►
   (i) Changes to the administrative documents and information submitted at the point of registration of the medical device. These require HSA's approval prior to implementation of the change(s) in Singapore
   (ii) All other changes to device particulars which are published on public SMDR listing that fall under 6Aii/6Aiii/6Aiv of the Flowchart 6A. These changes may be implemented immediately upon receipt of the acknowledgement email from HSA after submission via MEDICS. ◄

4) **Notification Changes** may be implemented immediately upon receipt of the acknowledgement email from HSA after submission via MEDICS. R4.3 ► These changes are as follows:

(i) Change to delete or remove device particulars which are published on public SMDR listing;

(ii) All other changes which do not fall under Administrative, Technical or Review changes, unless specified under section 2.3 (Changes that do not require submission of Change Notification). ◄

If the change is in the context of, or is a consequence of a reportable Adverse Events (AEs) or Field Safety Corrective Actions (FSCAs), implementation of such changes can only proceed after the FSCA/local AE cases have been reported to MDB.

R4.7 ► Notification Changes may be bundled together and notified to HSA in one change notification application. Alternatively, such changes could also be submitted together with the next Review/Technical change of the registered device (whichever comes first). While bundling Notification changes, any such change shall be submitted within a maximum of 6 months from the point of first implementation, globally. Prior to implementation of notification changes in Singapore, companies shall maintain relevant inventory records on file to ensure traceability of the changes as part of their QMS requirements.

Bundled Notification Changes do not apply to:

- Artificial Intelligence (AI) based devices (e.g. machine learning, neural networks and natural language processing)
- changes to the drug substance/medicinal product of combination products
- AE/FSCA related changes ◄

NOTE: 'Notification' changes which are incorrectly classified will be rejected upon review and further supply of the affected device will be prohibited. Subsequent supply will be subject to approval of the change in the correct Change Notification category.

R4 ► **Table 1 - Categories of Change Notification for Class B, C and D listings**

Risk Classification	Technical Changes	Review Changes	Administrative Changes	Notifications
Class B		✓*	✓	✓
Class C	✓		✓	✓
Class D	✓		✓	✓

**Closed list of changes*

2.1. Addition and Changes to Class A Medical Devices in a SYSTEM*

R4.3 ► Class A medical devices that are specifically intended for use with a registrable medical device in a SYSTEM*, and included during product registration of that SYSTEM, will be listed on the SMDR upon successful registration of medical devices of the SYSTEM. A Change Notification submission would be required only if there are changes to the listing information of such Class A devices on the SMDR. These changes may be submitted together with other changes to registered medical devices of the SYSTEM. Alternatively, such Class A devices may be listed under the Class A Medical Device R4.8 ►Database◄ instead.

**For "SYSTEM" definition, please refer to GN12-1: Guidance on Grouping of Medical Devices for Product Registration – General Grouping Criteria*

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2.2. Changes to Medical Devices due to an AE and/or FSCA

Changes to medical devices may arise from the occurrence of AEs or FSCAs. The proposed changes to the medical devices in these situations are intended to have an impact on the safety, quality and/or efficacy of the medical device.

R4 ► Documents and information to be submitted in support of proposed changes may include the following information:

- Product owner's Field Safety Notice (FSN) or Dear 'Healthcare Professional' Letter (DHCPL) and/or other risk communication documents;
- Product owner's Health Hazard Evaluation (HHE);
- Product owner's Root Cause Analysis (RCA);

- Product owner's Corrective and Preventive Action (CAPA) to reduce likelihood of recurrence of device issue;
- Product owner's CAPA effectiveness/ validation.

If there is no change to the aforementioned documents submitted under FSCA reporting, applicant is not required to re-submit them in the Change Notification application. The FSCA reference number should be indicated within the Annex 2 to GN-21: Summary Table of Change Notification for reference. In situations where some of the above documents have yet to be submitted to HSA, or where further information is required, HSA may request for them.

Determination of the appropriate change category for Change Notification applications submitted in the context of, or as a consequence of or arising from open reportable AEs or on-going FSCAs shall be based on the type of change as per the flowcharts in the Section 3 of this document.

Changes submitted in the context of, or as a consequence of or arising from open reportable AEs or on-going FSCAs would require prior approval from HSA before implementation. This clause applies to all registered medical devices regardless of the category of change selected. Exception to this clause shall require the registrant to possess a written advice (e.g. acknowledgement email) from HSA that states otherwise. ◄

R4.3 ►

2.3. Changes which do not require Submission of Change Notification

The following specified change(s) would not require the submission of Change Notification to HSA:

- R4.8 ►Labelling changes that only involve changes in layout, colour, font sizes and design, without change in prominence of precautions, warnings, contraindications and/or adverse events◄.
- Labelling changes that involve the addition and/or removal of languages not required by the Authority.

- Labelling changes that involve the addition/removal of reference agency approvals (e.g. CE Marking).
- Labelling changes that involves the update of distributor information, including EU authorised representative, and which does not affect the device listing information.
- Labelling changes that involves the addition/change or removal of barcodes, and which does not change the device listing information.
- Labelling changes that involve the addition of a Unique Device Identifier (UDI), and which does not change the device listing information.
- Labelling changes that involve the change in date format of an existing labelling date field (e.g. from MMYY to DDMMYY).
- Change in regulatory status on rejection or withdrawal in any reference agencies for models registered on SMDR.
- Change involves only a design change that does not affect performance characteristics and/or specifications of the medical device (e.g. changes that improve ergonomics, aesthetic modifications)
- Raw material supplier changes (except medicinal substances and biological material suppliers) that do not change the registered medical device specifications.
- Change in scope of the quality management system (QMS) certification which does not affect the registered medical device.
- Change in certification body with no change in scope of QMS certificate. ◄

3. CHANGE TYPE ASSESSMENT FLOWCHARTS ◄ R4

The flowcharts detailed in this section present guiding principles for identification of the category of Change Notification applicable for each proposed type of change to the registered medical devices.

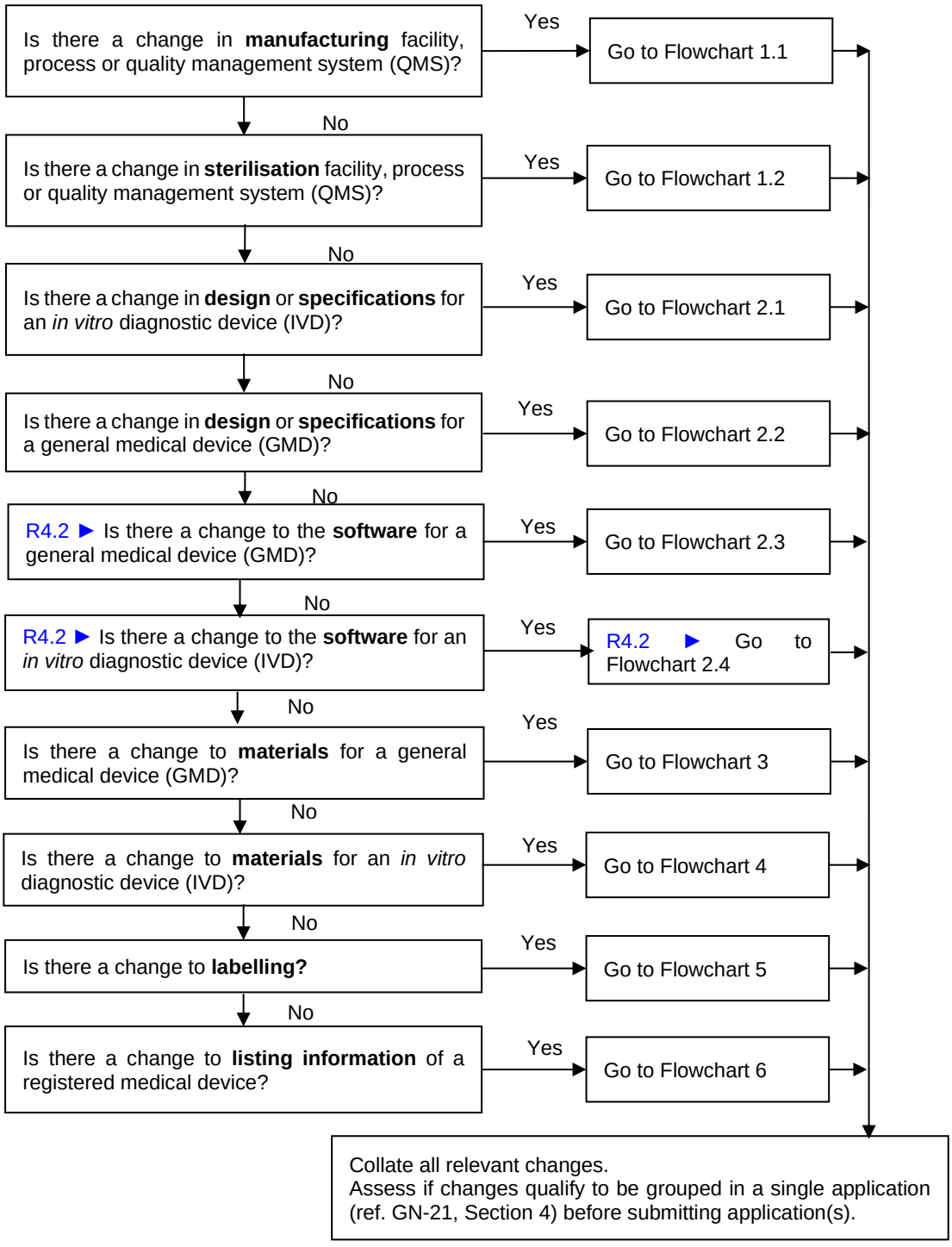
The “Main Flowchart” shall be used to determine the applicable flow chart for a specific change. Examples of changes are included in the flowcharts for ease of reference. Please note that the examples are not meant as an exhaustive list.

Full description of each final change type in the flowcharts can be found in Annex 4 to GN-21: Change Types Submission Reference List. This change type should be indicated in MEDICS and Annex 2 to GN-21: Summary Table during submission of CN application.

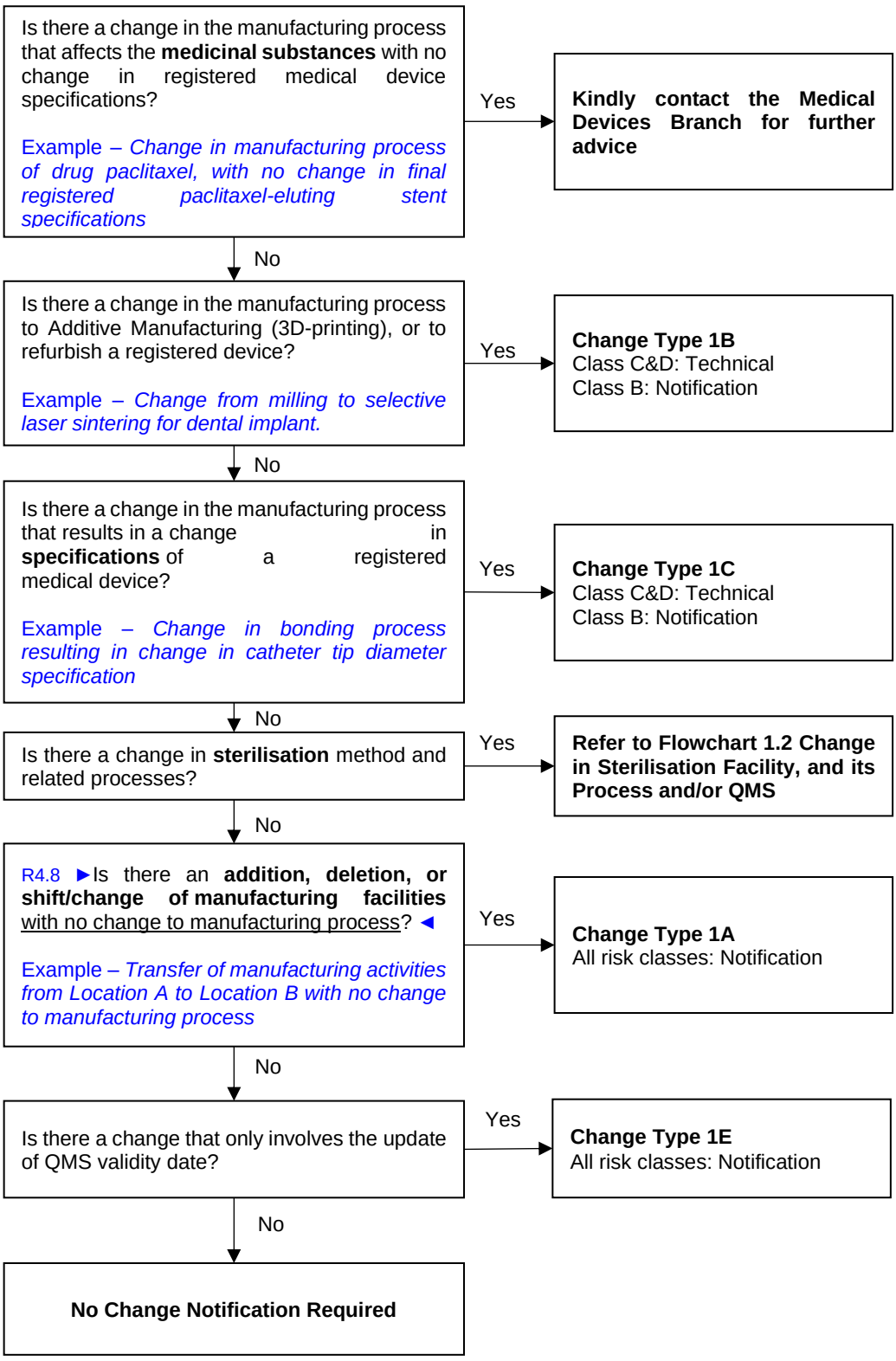
Main Flowchart

This flowchart describes the general types of changes that can be made to a medical device, and leads to more detailed categorisation in **Flowcharts 1.1 to 6A**.

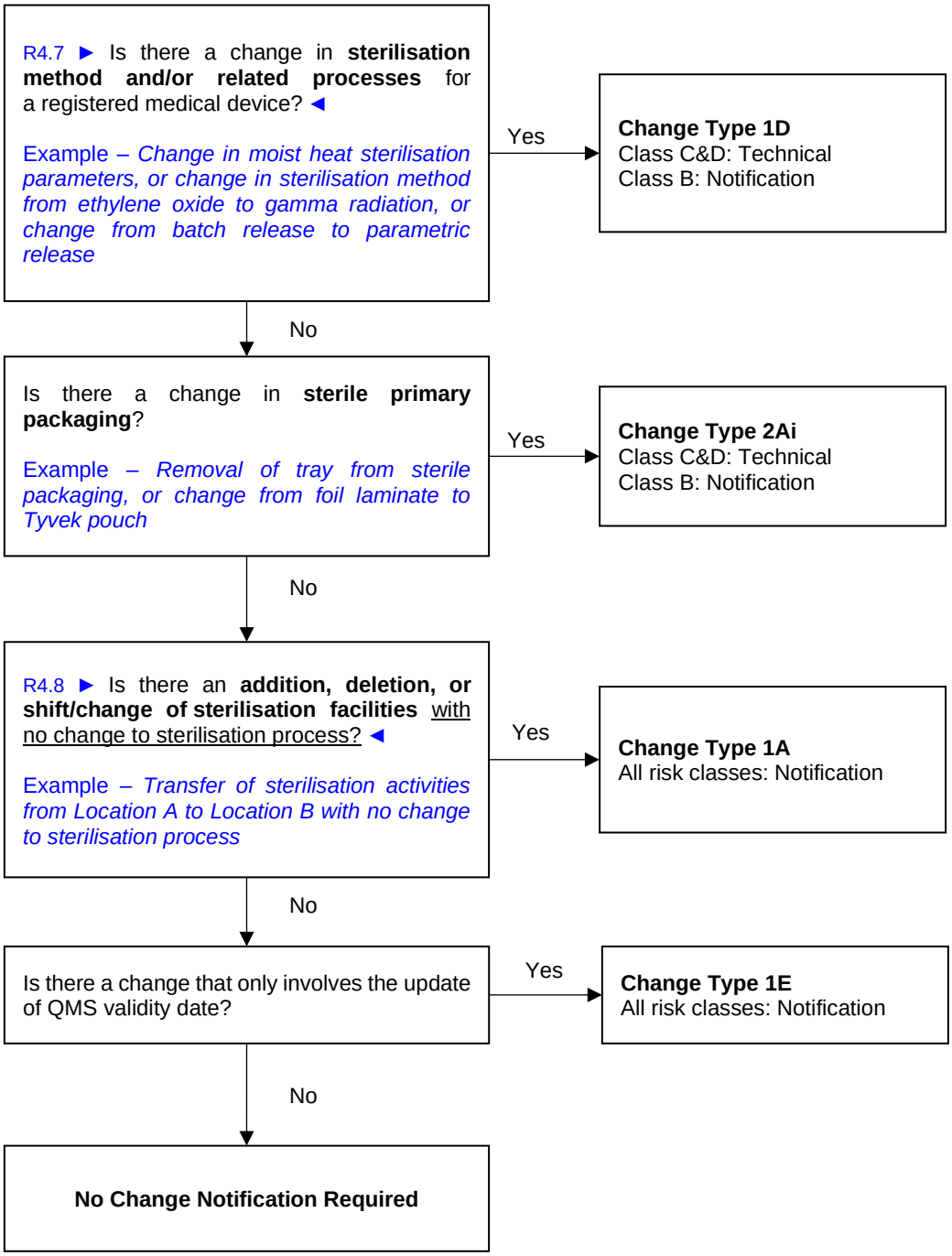
Applicants are advised to proceed through the entire flow, and identify all relevant changes impacting the medical device and SMDR listing prior to submission.



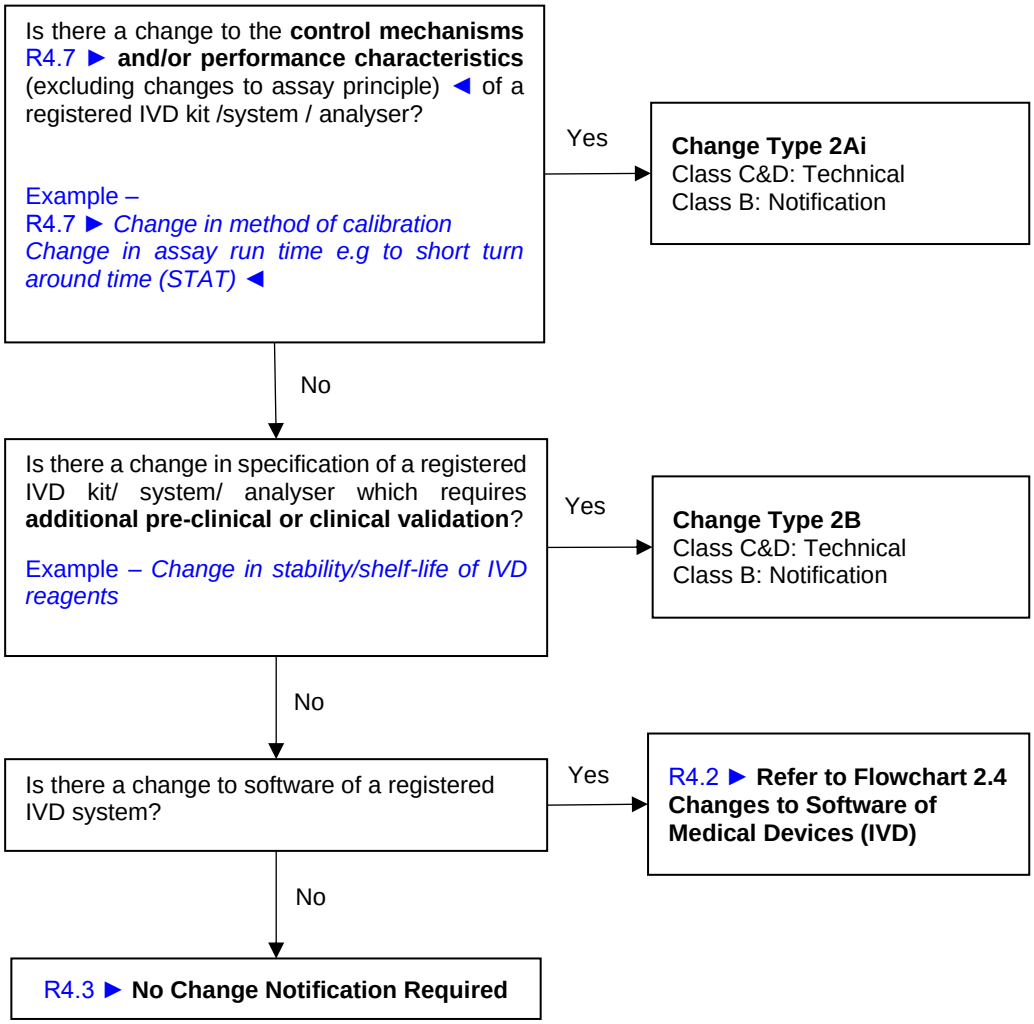
Flowchart 1.1: Change in Manufacturing Facility and its Process and/or Quality Management System



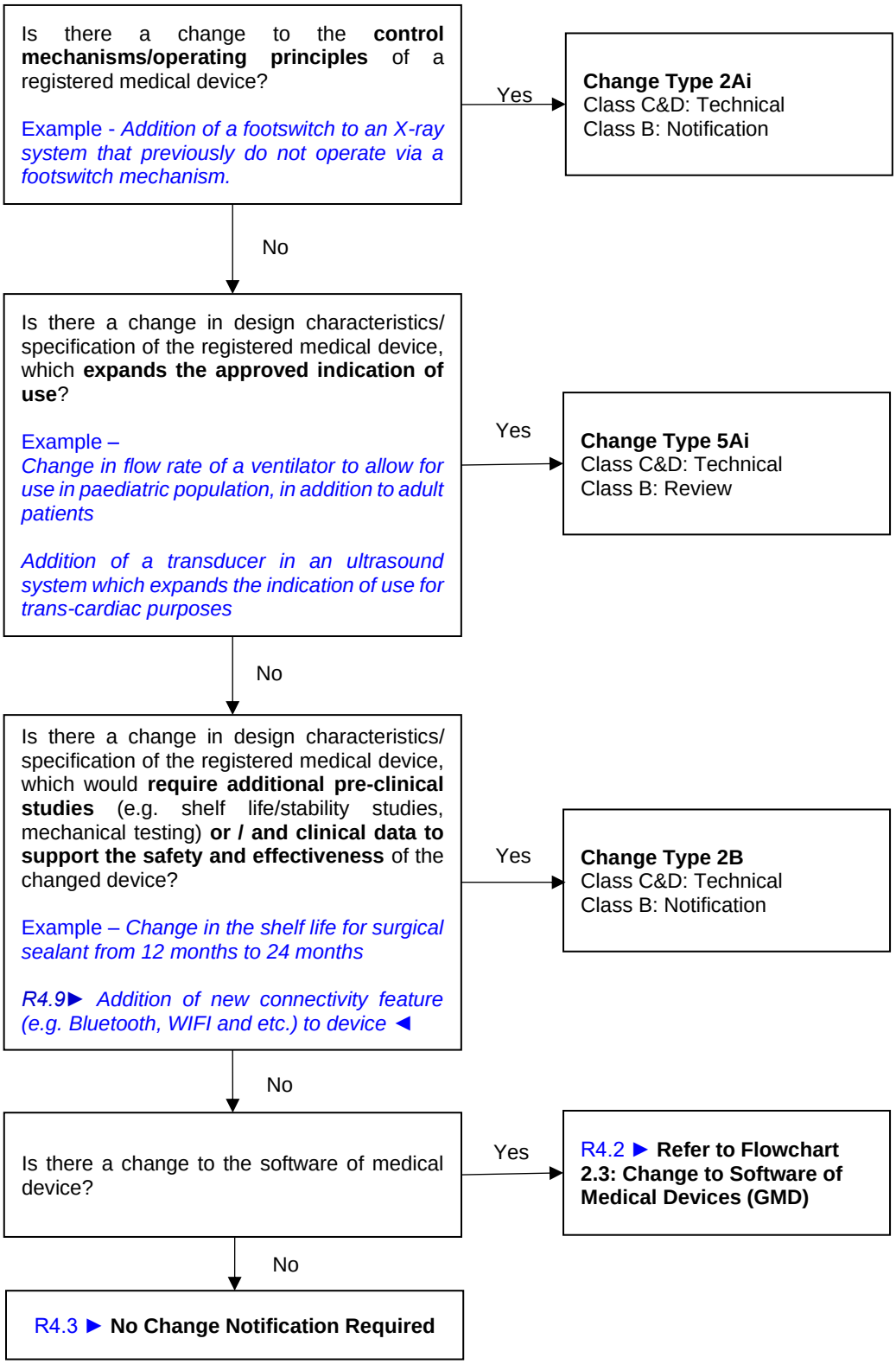
Flowchart 1.2: Change in Sterilisation Facility and its Process and/or Quality Management System



Flowchart 2.1: Changes in Design or Specifications of an *In Vitro* Diagnostic (IVD) Medical Device

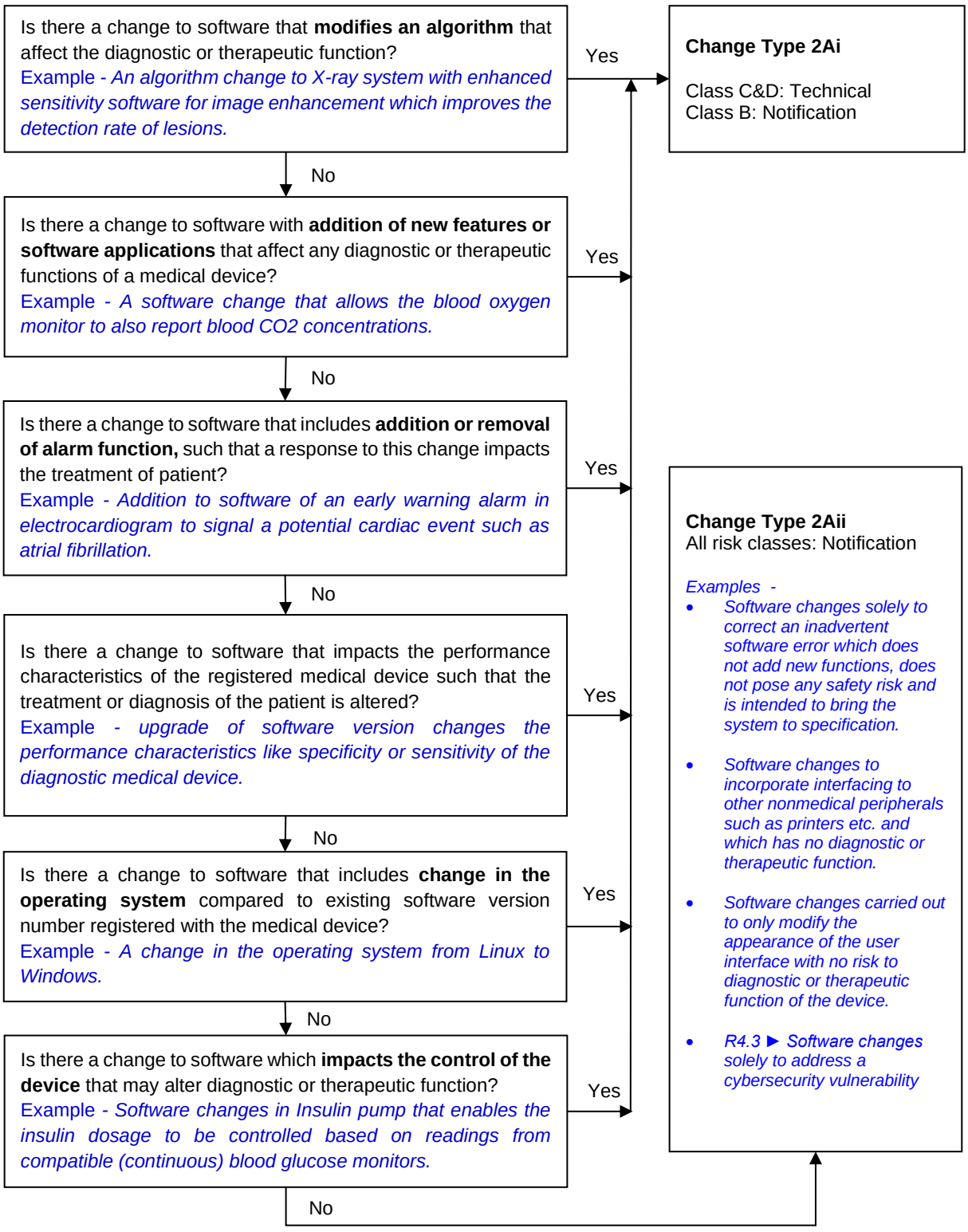


Flowchart 2.2: Change in Design and/or Specifications of General Medical Devices



R4.2 ►

Flowchart 2.3: Change to Software* of General Medical Devices (GMD)



***** Software refers to Standalone software and/or Software embedded in medical device system.
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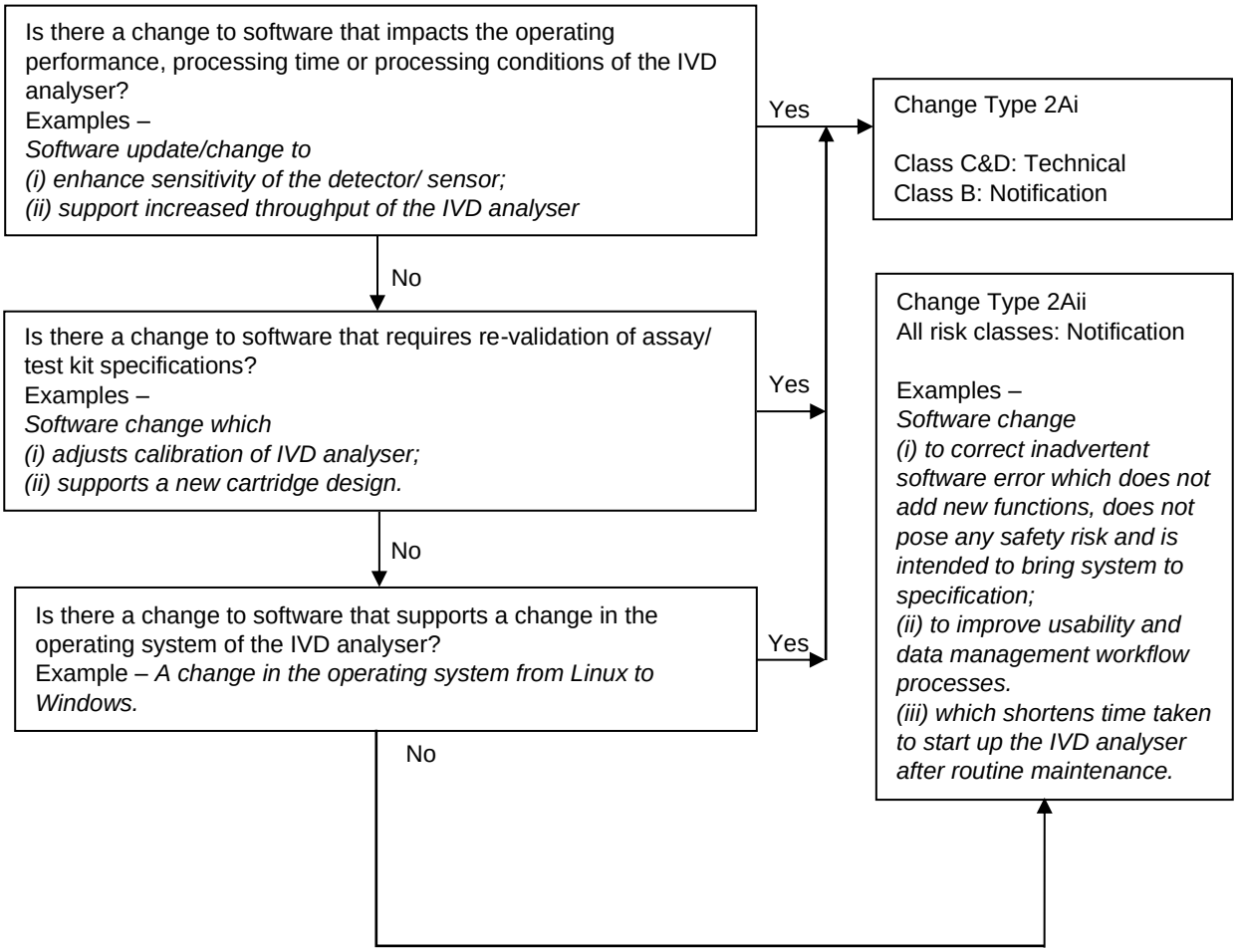
R4.7►

Flowchart 2.4: Change to Software of *In Vitro* Diagnostic Devices (IVD)



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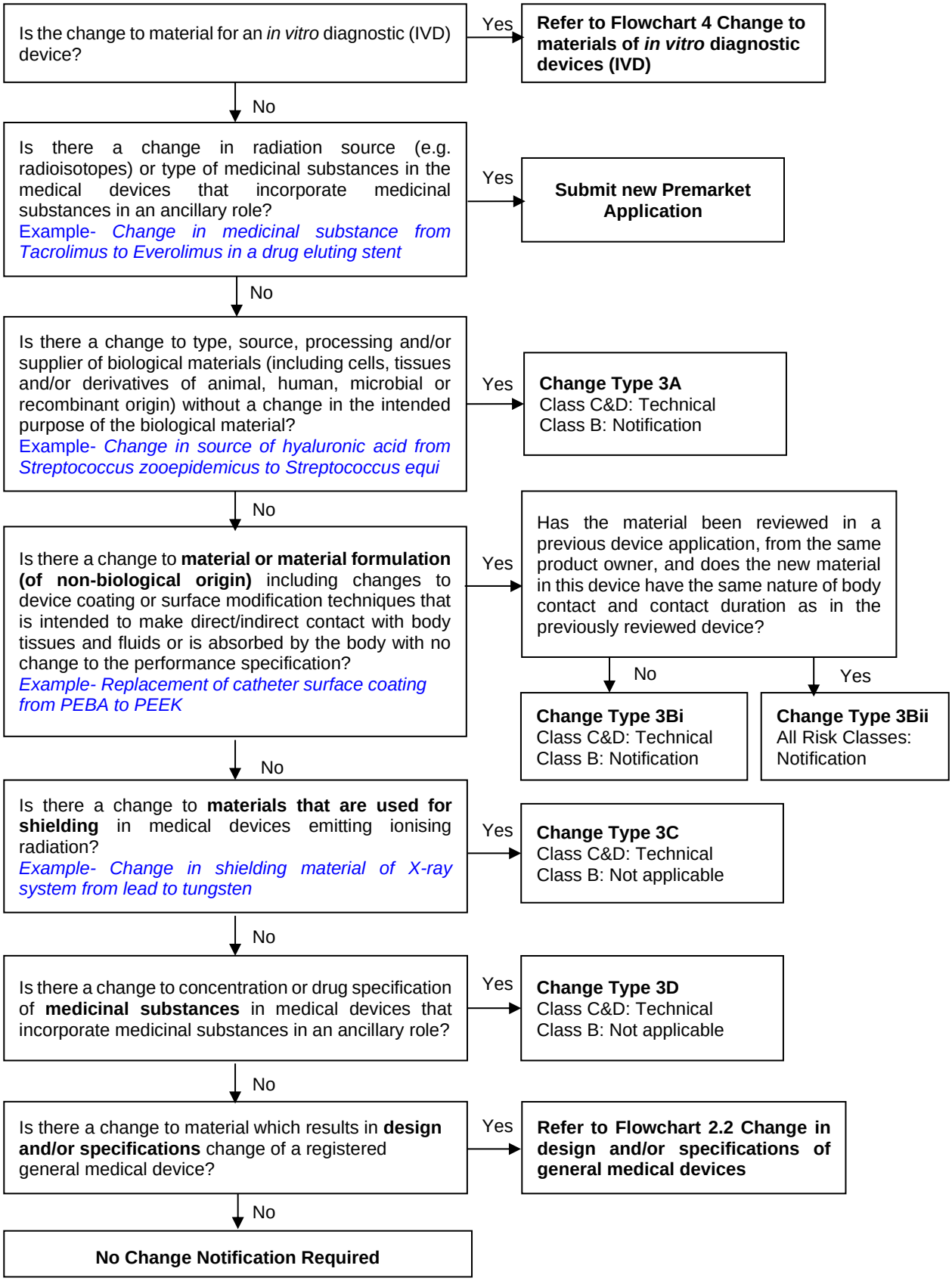
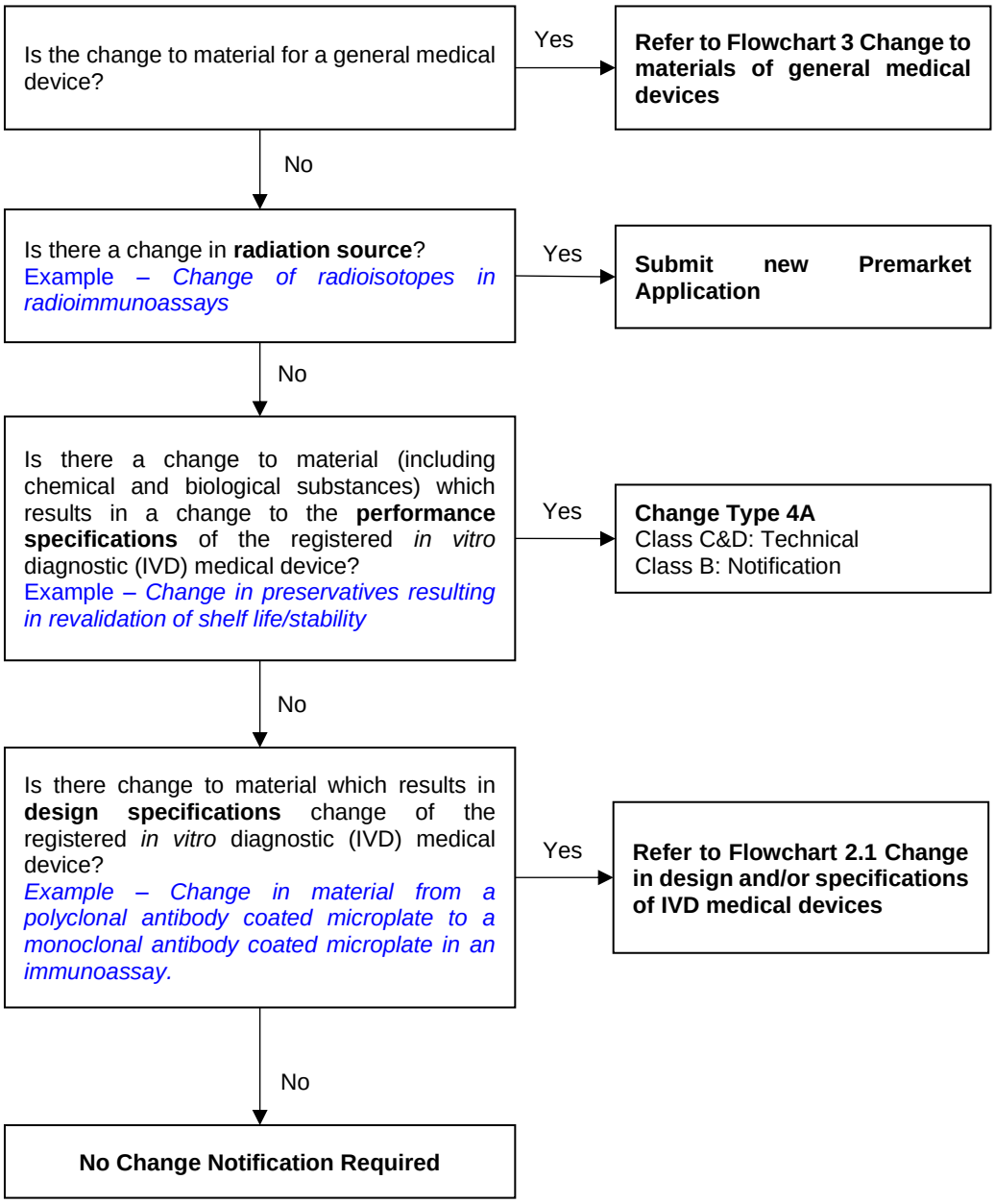
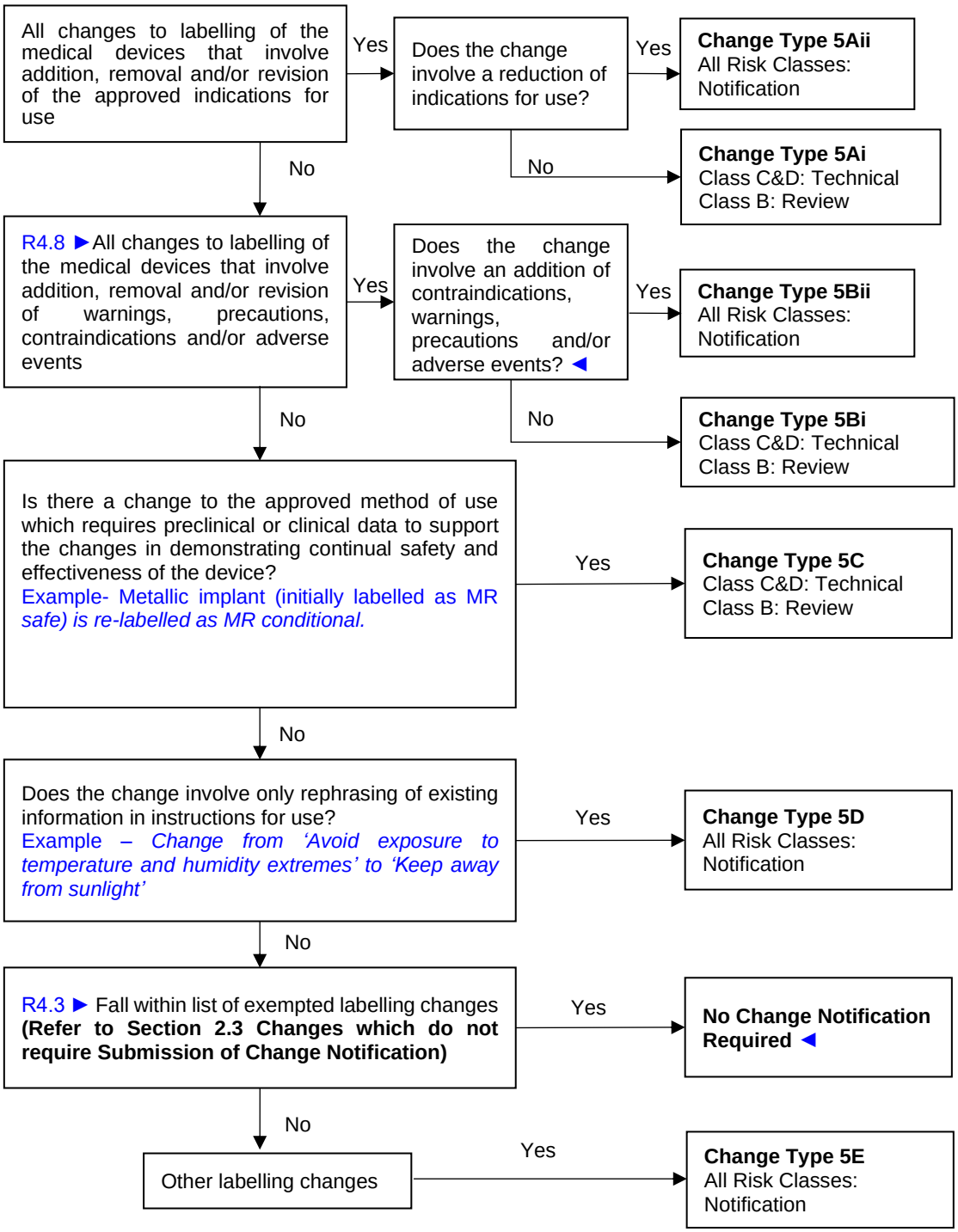
Flowchart 3: Change to Materials of General Medical Devices



Flowchart 4: Change to Materials of *In Vitro* Diagnostic Medical Devices



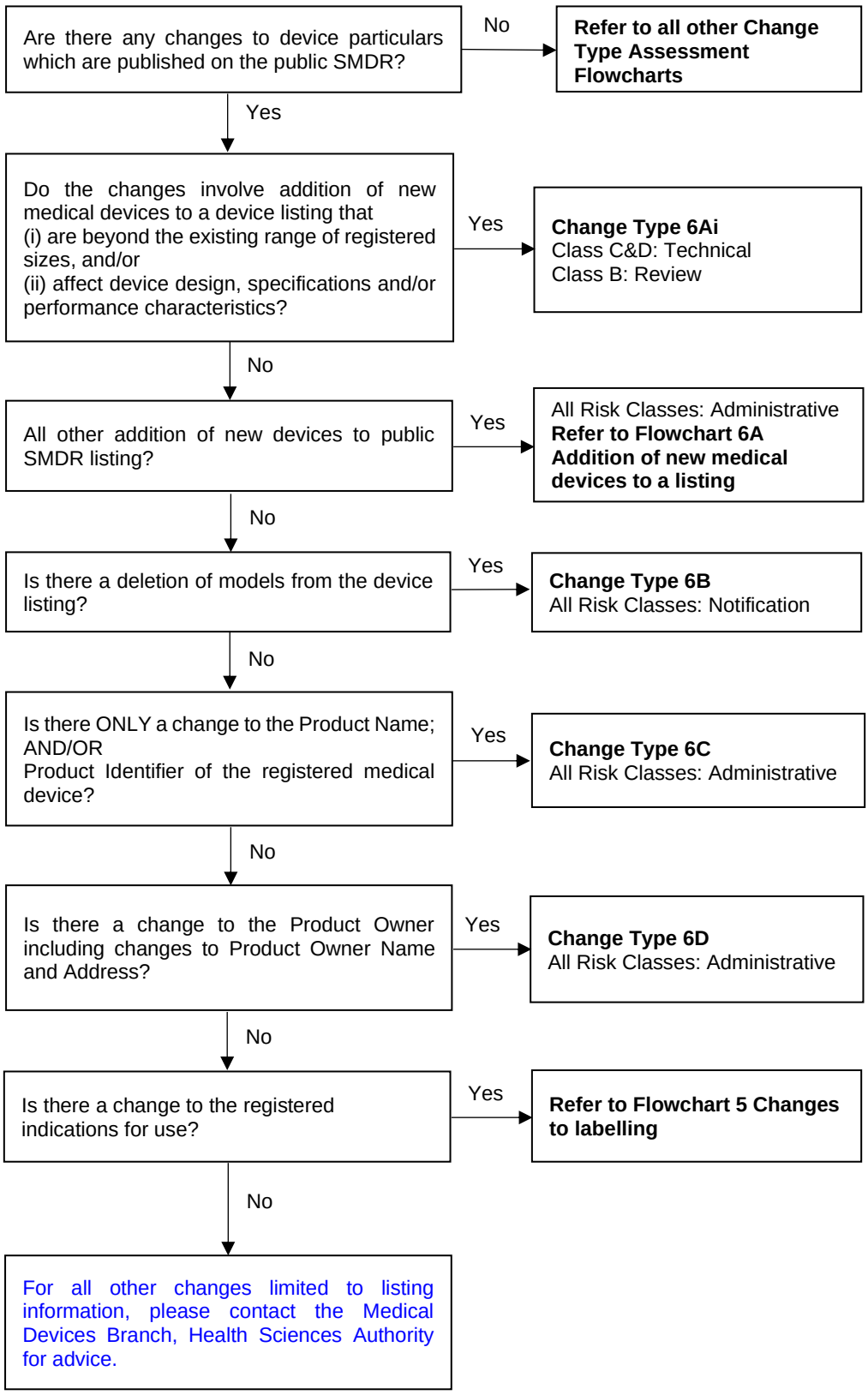
Flowchart 5: Changes to Labelling



Flowchart 6: Changes to Registered Medical Devices Listing Information

This refers to the primary change under this category. For consequential changes to the device listing information, please refer to other flowcharts.

R4.3 ►



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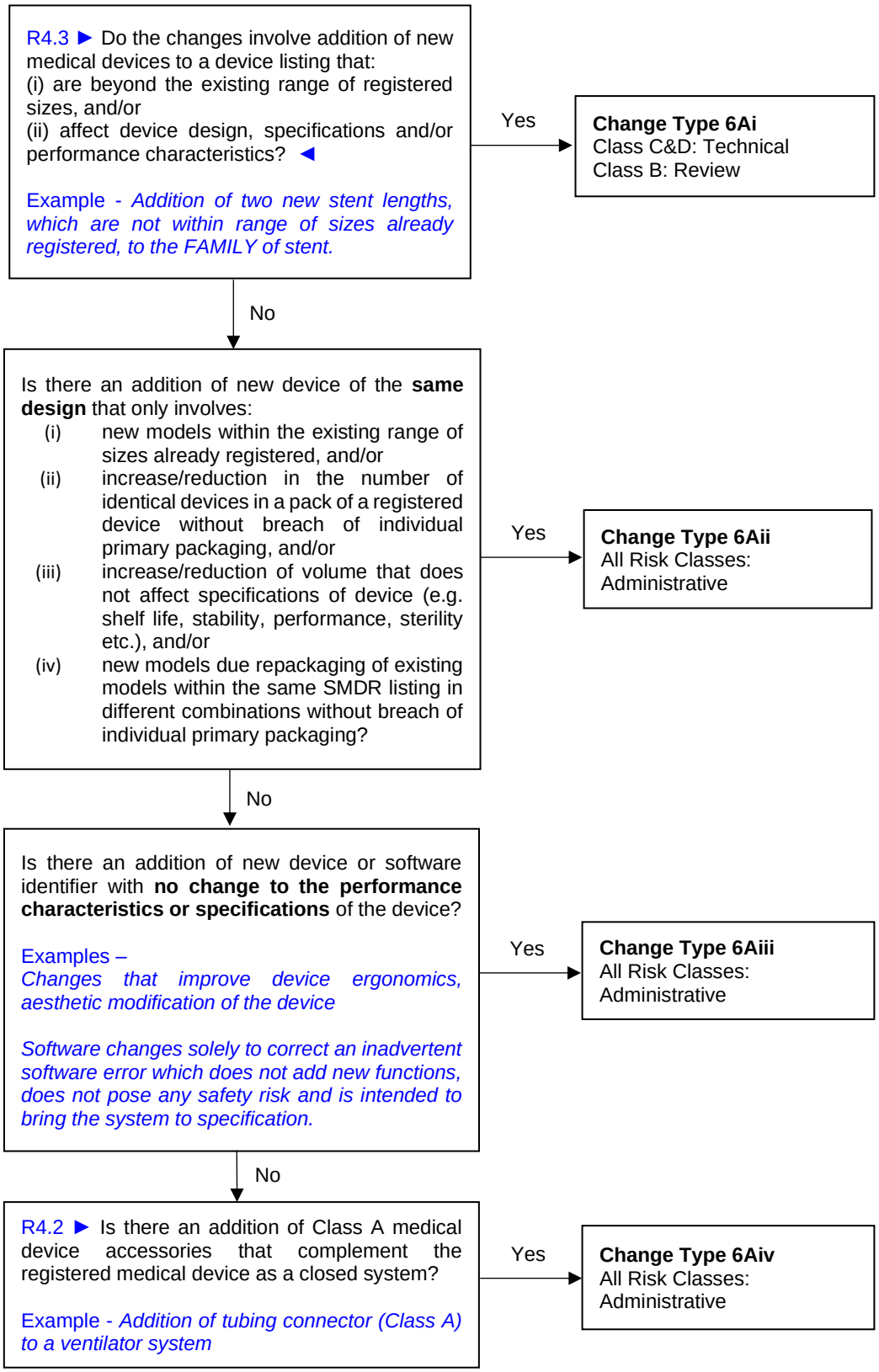
Flowchart 6A: Addition of New Medical Devices to a Device Listing



R4.3 ►Refer to *GN-34: Guidance Document for IVD Analysers* for further information on addition of IVD analysers to device listing. ◄

4. APPLICATION PROCESS FOR CHANGE NOTIFICATION

Upon identifying all applicable categories of changes based on the flowcharts in Section 3, the changes may be grouped as per guidelines below, and submitted as a single Change Notification application for the medical device listing(s).

NOTE

1. *For changes within **one dossier** and involving listings of **a single risk class**:*
   Multiple changes (Notification, Administrative, Review and Technical changes) will be considered in one CHANGE NOTIFICATION application if they are submitted together. Fees and assessment done will follow the highest change category in that application.

2. *For changes in **two or more dossiers** involving listings of **a single risk class**:*
   a) *Applicants can submit one CHANGE NOTIFICATION application on MEDICS for:*
      (i) identical administrative and notification changes to multiple SMDR listings, or
      (ii) where the same new product is added to multiple SMDR listings, if the changes are submitted together.

   Non-identical changes in any one listing may result in the entire CHANGE NOTIFICATION application being rejected.

   b) *Applicants can submit one CHANGE NOTIFICATION application for technical changes to the same medical device that is part of multiple device listings (as part of a FAMILY, SYSTEM, GROUP, TEST KIT). Product identifiers listed in each of the SMDR device listings selected must be the same.*
      Example:
      A change in design (Technical change) to a Calibrator (Product identifier: AB1234) that is listed as part of the following SYSTEMS that have been listed separately on SMDR:

SMDR device listing number	***Name of device listing***	***Models listed on SMDR***
DE12345	*APEX Troponin Test system*	*APEX Troponin test strip (AT987)* *APEX wash buffer (AT654)* ***APEX calibrator (AB1234)***
DE98765	*APEX CK-MB Test System*	*APEX CK-MB test strip (AC786)* *APEX wash buffer (AC423)* ***APEX calibrator (AB1234)***

      Change to the APEX calibrator (AB1234) in SMDR listings, DE12345 and DE98765, can be submitted in one CHANGE NOTIFICATION application.

   c) *Non-identical administrative changes and technical changes that do not fall under the categories above: Applicant to submit separate CHANGE NOTIFICATION application for each change on MEDICS.*

3. ***Identical changes** involving **SMDR listings of different risk classes** may be submitted in one CHANGE NOTIFICATION application only for the following categories of change.*
   - *Change in product owner (6D)*
   - *Change in manufacture and/or sterilisation site (1A)*
   - *Change only involves an update of QMS certificate validity date (1E)* ◀ *R4*
   - *Addition of identical Class A accessories (6Aiv)*

4. ***Identical changes*** *arising from open Field Safety Corrective Actions (**FSCAs**) or reportable Adverse Events (**AEs**) involving **SMDR listings of different risk classes,** please seek advice from MDB on applicable requirements prior to the submission of the application on MEDICS.*

5. ***R4.7*** ► ***Bundled Notification changes*** *are still required to fulfil points 1 to 3.* ◄

Please note that it is not possible to submit a new Change Notification application if there is a pending Change Notification application for the same product. The registrant has the option of either:

a. Withdrawing the pending Change Notification application and submitting a new change notification application, or
b. Submitting a new Change Notification application once the pending Change Notification application is completed.

Single applications submitted with changes belonging to multiple categories (**Notifications, Administrative, Technical** and **Review** changes) shall be classified based on the most stringent category of change in that application, and evaluated accordingly. The fees and Turn-Around-Time (TAT) will follow the most stringent category applicable.

4.1. Requirements for Change Notification

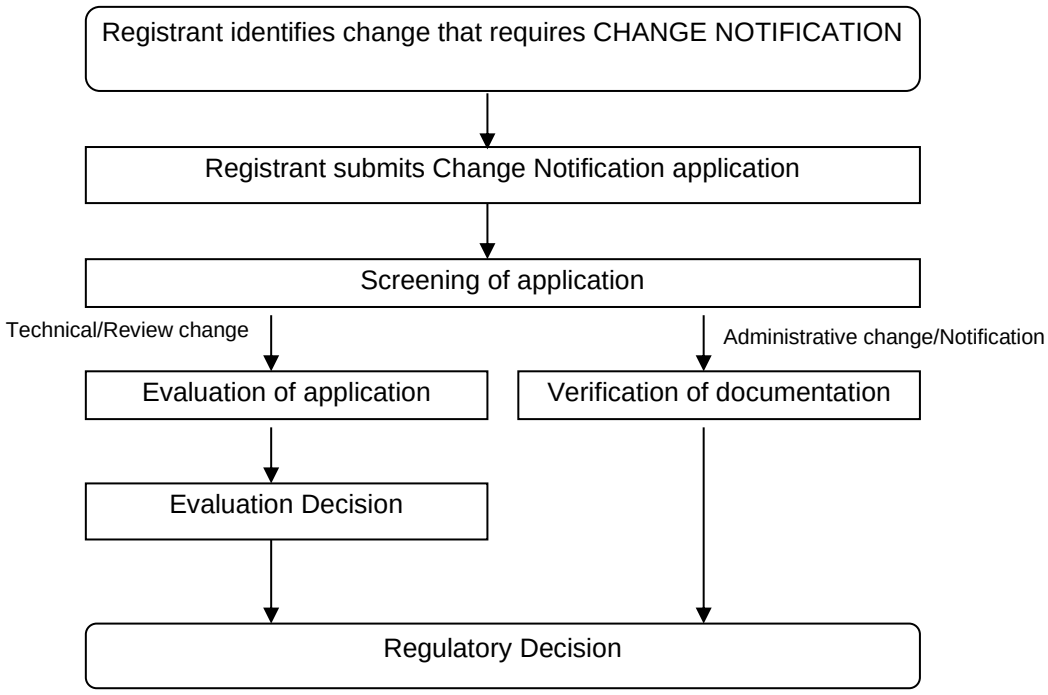
Applicant is required to submit the following:

a. All supporting documents listed in Annex 1 as applicable for the change types.
b. Duly completed Annex 2 to GN-21: Summary Table of Change Notification

R5 ► -- ◄

Registrants are reminded that the determination of documents required for Change Notification should be made with reference to all submitted changes, and not solely on one category of change.

The application process for the assessment of Change Notification application for registered Class B to D medical devices is summarised below:



Upon the successful submission of the Change Notification application on MEDICS, no further amendment of the application will be allowed unless otherwise advised by HSA. As application fees and TATs for Change Notification applications are based on a per-application basis, HSA recommends the judicious grouping of different categories of changes that affect each device listing, before submission of each Change Notification. Refer to Section 5 and Section 6 of this guidance document for the TATs and the fees applicable for each Change Notification category.

An application for changes categorised as **'Technical Change'** or **'Review Change'** will be evaluated. An evaluation decision is made based on the outcome

of the Authority's evaluation of the submitted information. The decision can be one of the following:

- The Change Notification is **approvable** – where Authority assessed that the changes made to the registered medical device meet prevailing requirements of safety, quality and efficacy for its intended purpose and may be registered for local supply; or
- The Change Notification is **non-approvable** – where the response provided by the applicant fails to address the deficiencies highlighted during the input request, or failure to adhere to specified time as stated in input request or provide information requested for within reasonable timeframe, or where changes made to the registered medical device does not meet prevailing requirements of safety, quality or efficacy for its intended purpose.

4.2. Implementation and Supply ◄ R4

Changes to the registered devices may be implemented upon approval of the respective Change Notification applications by the Authority.

R4 ► Upon approval of the Change Notification application, companies may concurrently supply both the original registered medical device and the changed medical device (subject of the Change Notification) only if both versions of the medical device conform to the Essential Requirements for Safety and Performance for medical devices as stipulated in the *Regulations*.

Companies shall ensure that appropriate mechanisms are in place to differentiate and identify the changed device from the original version based on device or manufacturing attributes (e.g. through batch/ lot/ serial number and manufacturing date), and maintain relevant inventory records on file to ensure traceability of both versions as part of their QMS requirements. All relevant records on file shall be made available to the Authority upon request.

This concurrent supply of the unchanged original device may not be applicable for changes to medical devices implemented as a consequence of reportable

AEs or FSCAs. Such changes typically impact the safety, quality and/or efficacy of the medical device and any further supply of the affected and/or corrected stocks shall be solely based on the written advice from HSA to the registrant in the context of the respective **AE or FSCA** cases.

For the concurrent supply of old-label and new-label stock in the context of **change(s) in product owner (6D)** Change Notification applications, companies will additionally be required to inform HSA of the proposed timeline for phasing out of old inventory stock with old product owner contact information from the market at the point of submission of the CN. Company should ensure there is appropriate communication to the affected consignees on any change in the product owner contact information in the interim, for the proposed period of concurrent supply. Concurrent supply for this scenario may be allowed by the Authority for stipulated timeline upon review of the information R4.9 ► and supporting documents ◄ provided.

In the context of **change in manufacture and/or sterilisation site (1A)** change notifications that is to replace existing sites for the registered device with new sites, companies who require concurrent supply of the devices from the old and new sites will additionally be required to inform HSA of the proposed timeline for phasing out of the manufacturing activity in the old site which should be supported by valid QMS certificate for the old site. Concurrent supply for this scenario may be allowed by the Authority for stipulated timeline upon review of the information R4.9 ► and supporting documents ◄ provided. ◄

5. CHANGE NOTIFICATION TURN-AROUND-TIME (TAT)

Applicants should ensure that the dossiers are complete before submission. Incomplete submissions and untimely responses to queries will result in unnecessary delays to the review process and inevitably prolong the overall processing timeline.

R4.3 ► **Table 2 - Change Notification TAT for Class B, C and D listings**

Risk Classification	TAT for Change Notification (in working days)		
	Review Changes	**Administrative Changes**	**Technical Changes**
Class B	45	30	Not applicable
Class C	Not applicable	30	75
Class D*	Not applicable	30	90

**For TATs with regards to changes to the medicinal product in Class D medical devices that incorporate a registrable medicinal product in an ancillary role, please contact HSA.*

The target TAT for Change Notification applications commences from the date of submission of the application and does not include 'stop-clock time' due to input requests for clarifications and additional information. The TATs published in Table 2 above shall be applied based on the highest category of change selected for that application (e.g. if a **Technical** Change and an **Administrative** Change for a Class C medical device listing are submitted in one application, the TATs for a **Technical** Change for a Class C medical device shall apply). TATs shall apply to each application on a per-application basis.

6. CHANGE NOTIFICATION FEES

R4.8 ► The fees applicable for the Change Notification applications can be found at the HSA website (https://www.hsa.gov.sg/medical-devices/fees). ◄ Fees chargeable for applications that includes multiple changes will depend upon the highest category of change selected (e.g. if a **Technical** Change and an **Administrative** Change for a Class C medical device listing are submitted in one application, the fees for a **Technical** Change for a Class C medical device shall apply).

All fees are **non-refundable** once the application has been submitted via MEDICS. Withdrawal or rejection of the application will result in **forfeiture** of the fees charged.

ANNEX 1 to GN-21: Change Notification Submission Requirements ◄ R4

This serves as a guide to assist the registrant in determining the required submission documents for the types of changes proposed.

NOTE:

All the required documents must be submitted for the relevant sections of the CSDT to support the proposed changes to the device. The documentary requirements are meant to cover the broadest aspect for each category of change. If any required documents as defined in the respective category in this checklist are not available or applicable for the change proposed, please provide a clarification or justification as appropriate. Please also refer to GN-15 for the relevant templates/documents which may be required for the registered devices.

Mandatory documents to be submitted for all Change Notification application:

- **Completed Annex 2 to GN-21: Summary Table of Change Notification;**
  R5 ► -- ◄

Documentary Requirements:	**1. Change in Manufacturing Facility, Process and Quality Management System (QMS)**				
	1A*	**1B**	**1C**	**1D**	**1E**
	B-D: Notification	B: Notification C&D: Technical	B: Notification C&D: Technical	B: Notification C&D: Technical	B-D: Notification
	All changes in manufacturing and/or sterilisation facilities with no changes to the specifications of a registered medical device and/or sterilisation process	All changes in manufacturing process to Additive Manufacturing, or to refurbish a registered device	All changes in the manufacturing site and/or processes that result in a change in specifications of a registered medical device	R4.7 ►All changes in sterilisation method and/or related processes for a registered medical device◄	R4.3 ► Update of QMS certificate validity date ◄
R4.5 ► Proof of QMS – E.g.: ISO 13485 Certificate, Conformity to US FDA Quality System Regulations or Japan MHLW Ordinance 169 ◄	✓	If applicable	If applicable	✓	✓
R4.7 ► Device labelling with changes are highlighted/identified and finalised device labelling◄	✓	If applicable	If applicable	✓	If applicable

- Continued -	1. Change in Manufacturing Facility, Process and Quality Management System (QMS)				
	1A*	1B	1C	1D	1E
	B-D: Notification	B: Notification C&D: Technical	B: Notification C&D: Technical	B: Notification C&D: Technical	B-D: Notification
Declaration from product owner on company letterhead to state that there is no change to device in all aspects, including intended use, technical specifications and/or sterilisation process	✓				
R4.5 ►Sterilisation validation report (including EO residuals report if applicable) and evidence of on-going sterilisation validation. ◄	If applicable			✓	
Summary of new manufacturing process		✓	✓		
R4.5 ►Design verification and validation documents◄		✓	✓	✓ R4.5 ► e.g. post-sterilisation functional test report◄	
Risk Analysis (If applicable)		✓	✓		

** For changes in manufacturing/ sterilisation site of medical devices containing medicinal products in an ancillary role, please contact the Medical Devices Branch, Health Sciences Authority for further advice.*

	2. Changes in Design or Specifications of a registered medical device (GMD and IVD)		
	2Ai	**2Aii**	**2B**
	B: Notification C&D: Technical	B-D: Notification	B: Notification C&D: Technical
Documentary Requirements:	Changes to the control mechanisms, operating principles, sterile primary packaging and/or design characteristics of a registered medical device.	Unless the change only involves a change to the software version number such as: • Software changes solely to correct an inadvertent software error which does not add new functions, does not pose any safety risk and is intended to bring the system to specification; • Software changes which augment interfacing to other nonmedical peripherals such as printers or VDUs and which has no diagnostic or therapeutic function; • Software changes which only modifies the appearance of the user interface with no risk to diagnostic or therapeutic function of the device. R4.3 ► • Software changes solely to address a cybersecurity vulnerability ◄	All changes in specifications of a registered medical device (including shelf life, stability, expiry date)
R4.5 ►Design verification and validation documents ** Refer to Documentation Guidelines for Software Changes table in this Annex* ◄	✓	✓	✓
Risk Analysis	✓		✓
R4.5 ►Clinical Evidence (If applicable) ◄	✓		✓
R4.7 ►Device labelling with changes are highlighted/identified and finalised device labelling◄	✓	✓	✓

Documentation Guidelines for Software Changes

R4.5 ►

Documentary Requirements	Software change (Notification)	Software change (Technical/ Review)
Detailed summary of software changes (can be included in the Annex 2, Summary Table of Change). To include information on the incremental changes or revisions to the software from the registered software version. R4.7►To provide the final software version to be supplied in Singapore. Note: The final software version that represents all software changes/iteration (e.g. graphic interface, functionality, bug fixes and etc.) should be provided. Software version numbering that is solely for testing or internal use only (e.g. checking in of source code) are not required.◄	✓	✓
An overview of all verification, validation, and testing performed for the software both in-house and in a simulated or actual user environment prior to final release.		✓
All unresolved anomalies in the release version of the software should be summarized, along with a justification for acceptability (i.e. the problem, impact on safety and effectiveness, and any plans for correction of the problems).		✓
Evidence to demonstrate that the software issue has been resolved.		✓ (e.g. test cases verification)

◄

Note- for in vitro diagnostic (IVD) devices, performance validation of the IVD analyser & assay conducted using software is acceptable in lieu of the software validation report.

	3. Changes to Materials in a General Medical Device				
	3A	**3Bi**	**3Bii**	**3C**	**3D**
	B: Notification C&D: Technical	B: Notification C&D: Technical	B-D: Notification	B: NA C&D: Technical	B: NA C&D: Technical
Documentary Requirements:	All changes to type, source, processing and/or supplier of biological materials (including cells, tissues and/or derivatives of animal, human, microbial or recombinant origin) without a change in the intended purpose of the biological material.	All changes to material or material formulation (of non-biological origin) including changes to device coating or surface modification techniques that is intended to make direct/indirect contact with body tissues and fluids or is absorbed by the body, with no change in device performance specifications.	Unless the material has been reviewed in a previous device application and the new material has the same nature of body contact and contact duration.	All changes to materials that are used for shielding in medical devices emitting ionising radiation.	All changes to concentration or drug specification of medicinal substances in medical devices that incorporate medicinal substances in an ancillary role.
R4.5 ►Design verification and validation documents ◄	✓ (e.g. biocompatibility)	✓ (e.g. biocompatibility, mechanical)	✓ (e.g. biocompatibility, mechanical testing, sterilisation validation)	✓ (e.g. radiation safety validation report summary)	Contact the Medical Devices Branch for further advice.
R4.5 ►Clinical Evidence (If applicable) ◄	✓	✓		✓	
R4.5 ►Biological safety data - Process validation results to substantiate that manufacturing procedures are in place to minimize biological risks, in particular, with regard to viruses and other transmissible agents. This also includes inactivation of infection organisms. ◄	✓ (e.g. viral validation report)				
- Continued -	**3. Changes in Materials in a General Medical Device**				

	3A	3Bi	3Bii	3C	3D
	B: Notification C&D: Technical	B: Notification C&D: Technical	B-D: Notification	B: NA C&D: Technical	B: NA C&D: Technical
R4.5 ► Information of sources/donors -An indication of biological material or derivative used in the medical device, its origin and source/donor ◄	✓				Contact the Medical Devices Branch for further advice.
List of material(s) making direct/ indirect contact with human body	✓	✓	✓		
Information on radiation source				✓	
Information on materials for shielding of radiation				✓	
Justification for choice of identified referenced device (provide device registration & model number), with consideration to the device intended use, indications of use, nature of body contact and contact duration.			✓		

Documentary Requirements:	**4. Change to Materials of *In Vitro* Diagnostic Medical Devices**
	4 A
	B: Notification C&D: Technical
	All changes to material (including chemical and biological substances) which results in a change to the performance specifications of the registered *in vitro* diagnostic (IVD) medical device
R4.5 ►Design verification and validation documents◄	✓ *e.g. Shelf life studies, specificity and sensitivity studies*
R4.5 ►Clinical Evidence◄	✓
R4.5 ►Biological safety data - Process validation results to substantiate that manufacturing procedures are in place to minimize biological risks, in particular, with regard to viruses and other transmissible agents. This also includes inactivation of infection organisms in reagents and the production of reagents. ◄	✓ *e.g. Certificate of Analysis (COA), Certificate of Compliance (COC)*
R4.5 ►Information of sources/ donors -An indication of biological material or derivative used in the medical device, its origin and source/donor◄	✓
R4.7 ► Device labelling with changes are highlighted/identified and finalised device labelling ◄	
R4.5 ► Risk analysis ◄	

All changes to the radiation source require a new premarket submission. E.g. Radioisotopes in radioimmunoassays

	5. Changes to Labelling						
	5Ai	**5Aii**	**5Bi**	**5Bii**	**5C**	**5D**	R4.3 ► **5E** ◄
	B: Review C&D: Technical	B-D: Notification	B: Review C&D: Technical	B-D: Notification	B: Review C&D: Technical	B-D: Notification	B-D: Notification
Documentary Requirements:	All changes to the labelling of medical devices that involve addition and/or revision of the approved indications for use	Unless the change only involves a reduction of indications for use	R4.8 ►All changes to labelling of the medical devices that involve removal and/or revision of warnings, precautions, contraindications and/or adverse events◄	R4.8 ►Unless the change involve an addition of contraindications, warnings, precautions and/or adverse events◄	Labelling changes that modify the approved method of use	Change involves only rephrasing of existing information in instructions for use	Other labelling Changes
R4.5 ► Proof of reference agency's approval(s) for the change◄	✓						
R4.7 ► Device labelling with changes that are highlighted/identified and finalised device labelling ◄	✓	✓	✓	✓	✓	✓	✓
Declaration of conformity document	✓						

- Continued -	5. Changes to Labelling						
	5Ai	**5Aii**	**5Bi**	**5Bii**	**5C**	**5D**	**5E**
	B: Review C&D: Technical	B-D: Notification	B: Review C&D: Technical	B-D: Notification	B: Review C&D: Technical	B-D: Notification	B-D: Notification
R4.5 ► Device verification and validation documents **Refer to Documentation Guidelines for Software Changes table in this Annex* ◄	✓		✓		✓		
R4.5 ► Clinical Evidence ◄	✓		✓		✓		
Risk Analysis	✓		✓	✓	✓		
Other relevant documents supporting proposed changes submitted (If applicable)							✓

	6. Changes to registered medical devices listing information							
	6Ai	**6Aii**	**6Aiii**	**6Aiv**	**6B**	**6C**	**6D**	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
Documentary Requirements:	Addition of new medical devices to a device listing	Unless the change involves the addition of the same design, that only involves: • New models within the existing range of sizes already registered; • An increase or reduction in the number of identical devices in a pack of a registered device without breach of individual primary packaging; • An increase or reduction of volume that does not affect specifications of device (e.g. shelf life, stability, performance and sterility); • Addition of models due repackaging of existing models within the same SMDR listing in different combinations without breach of individual primary packaging.	Unless change involves the addition of a new device or software identifier with no change to the performance characteristics or specifications of the device	Unless the change involves the addition of Class A medical device accessories that complement the registered medical device as a closed system	All deletions of models from device listing	All changes to Product Name and/or identifier	All changes to the product owner	A changes to product owner address
Annex 2 - List of Configurations with new/ updated models highlighted	✓	✓	✓	✓	✓	✓		
R4.5 ►Device description of the added model◄	✓	✓	✓	✓				

- Continued -	6. Changes to registered medical devices listing information						
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative
R4.5 ►A comparison, preferably in a table, of the design, specifications, intended use/indications for use between the current registered devices and the proposed added device(s) the proposed. To include labelled pictorial representation (diagrams, photos, drawings) where necessary. ◄	✓	✓	✓	✓			
R4.5 ►Justification for addition of device models to be grouped within the registered listing [e.g. Patient information leaflet and promotional material (including brochures and catalogues)] ◄	✓	✓	✓	✓	✓ Justification for deletion of model(s)		

- Continued -	6. Changes to registered medical devices listing information							
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
R4.5 ► Cybersecurity (if applicable) Evidence to support the cybersecurity of connected medical devices, such as wireless enabled, internet-connected and network-connected devices. For example, but not limited to: -Cybersecurity vulnerabilities and risk analysis -Cybersecurity control measures -On-going plans, processes or mechanisms for surveillance, timely detection and management of cybersecurity related threats during the useful life of the device especially when a breach has been detected. ◄	✓	✓	✓					
R4.7 ► Device labelling with changes are highlighted/ identified and finalised device labelling ◄	✓	✓	✓			✓	✓	✓

- Continued -	6. Changes to registered medical devices listing information							
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
Declaration of conformity document	✓	✓	✓			✓	✓	
Letter of Authorisation (GN-15)	✓	✓	✓	**R4.7 ►✓◄**	R4.6 ► ◄	✓	✓	✓
R4.5 ► Device verification and validation documents **Refer to Documentation Guidelines for Software Changes table in this Annex* ◄	✓	If applicable	If applicable					
R4.5 ► Clinical Evidence (If applicable) ◄	✓							
Risk analysis (If applicable)	✓							
R4.5 ► Proof of reference agency's approval(s) for the change◄	✓	✓	✓					

- Continued -	6. Changes to registered medical devices listing information							
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
R4.5 ► Marketing History* (List of countries from HSA's reference regulatory agency jurisdictions where the medical device is marketed. Date (accurate to MMYYYY) and country where the device was first introduced for commercial distribution globally.) ◄	✓ R4.5 ► *Applicants may wish to provide this additional document to assist with the evaluation process. ◄							
R4.5 ► Adverse events (AE) / Field safety corrective action (FSCA) - To include a summary of reportable AEs and FSCAs for the MD since its first introduction on the global market. If there have been no AEs or FSCAs to date, provide an attestation from product owner on company letterhead, that there have been no AEs or FSCAs since commercial introduction of the device globally. ◄	✓	✓	✓					

- Continued -	6. Changes to registered medical devices listing information							
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
Manufacturing information (site's name and address)	✓	✓	✓	✓				
R4.5 ► Proof of QMS – E.g.: ISO13485 Certificate, Conformity to US FDA Quality System Regulations or Japan MHLW Ordinance 169 ◄	✓	✓	✓					

- Continued -	6. Changes to registered medical devices listing information							
	6Ai	6Aii	6Aiii	6Aiv	6B	6C	6D	
	B: Review C&D: Technical	B-D: Administrative	B-D: Administrative	B-D: Administrative	B-D: Notification	B-D: Administrative	B-D: Administrative	
Declaration Letter				✓ From Registrant on company letterhead, to state (1) The added models are Class A devices; (2) Class A device name and identifier; (3) The name of product owner; (4) Name and address of manufacturing site(s) for the Class A devices		✓ From product owner on company letterhead, to state that there is no change to the device in all aspects, including intended use, technical specifications and/or sterilisation process.	✓ From product owner on company letterhead, to state that they will undertake responsibility to provide post market support and assistance related to the medical devices <state device name> already supplied under the former product owner's name (if applicable)	

ANNEX 2 to GN-21: Summary Table of Change Notification

Guidelines on completing the Summary Table of Change Notification

This summary table is to be completed and submitted for all Change Notification applications (Technical Changes, Review Changes, Administrative Changes, and Notifications).

List the proposed changes, according to the "Category of change" categories in GN-21, to the registered medical device(s) in the summary table below. All applicable types of changes are to be included; any change not specified in this table will not be included for the change notification application.

Information to be included in the table is explained below:

(i) **Type of changes:** Please state clearly the **type of change**, **category of change** and **SMDR device listing number.**

- With reference to the 'type of changes' categories in GN-21, highlight the type of change proposed.
- Specify the SMDR device listing number for the registered medical device(s) included in this change (if the proposed change is identical and applicable to identical devices across multiple device listings on the SMDR; list the applicable device listings). Confirm these device(s) subjected to the change.

NOTE *All applicable types of changes are to be included. If the types of change proposed affects/results in another type of change, all types of changes shall be included. For example, change in material of device and change (update) of labelling often occur together.*

(ii) **Present:** Please state clearly the current scope and aspects of the device to be changed.

(iii) **Proposed:** Please state clearly the proposed scope and aspects of change.

(iv) **Reason for change:** Please state clearly the rationale for the proposed scope and aspects of change.

(v) **Status of proposed change in reference agencies:** Please state the reference agency status (approved/authorised for marketing) for these proposed changes.

(vi) Indicate in the check box if the medical device(s) in this Change Notification application is a subject of an on-going field safety corrective action.

Please select the correct box.

The change(s) in this Change Notification application is/are related to field safety corrective action and/or reportable adverse events.

☐ Yes ☐ No ◄ R3.2

Type of Changes	Present	Proposed	Reason for change#	Status of proposed change in reference agencies*	Justification for not submitting documents as specified in Annex 1 to GN-21: Change Notification Checklist ◄ R4
Type of change: *e.g. Change in material: Delivery tube material changed from polyvinyl chloride (PVC) to silicone* **Category:** Notification **SMDR Device listing no(s):** (same tubing is in all the SMDR Device listing below) (i) DE 001111, (ii) DE 002222, (iii) DE 003333, *(iv)* DE 004444.	*Delivery tube material: polyvinyl chloride (PVC)*	*Delivery tube material silicone*	*Improve patient safety by changing to DEHP-free tubing material*	*Australia TGA – pending* *EU Notified Body – approved/authorised for marketing* *Health Canada – not supplied* *US FDA – not supplied* *Japan MHLW – not supplied*	

Type of Changes	Present	Proposed	Reason for change#	Status of proposed change in reference agencies*	Justification for not submitting documents as specified in Annex 1 to GN-21: Change Notification Checklist ◄ R4
Type of change: *e.g. Change in Manufacturing Facility* **Category:** **SMDR Device listing no(s):** DE 005555	*Name and address of current manufacturing facility A*	*Name and address of new manufacturing facility B*	*Reason for product owner's decision to move manufacturing activities from facility A to facility B*	*Australia TGA – pending* *EU Notified Body – approved/authorised for marketing* *Health Canada – not supplied* *US FDA – not supplied* *Japan MHLW – not supplied*	
R4.7 ► **Type of change:** *e.g. Other labelling changes* **Category: Notification** ☒ Bundled Notification Changes in the last 6 months	*Description of present labelling*	*Description of proposed labelling*	*Reason for labelling change*	*NA*	

Type of Changes	Present	Proposed	Reason for change#	Status of proposed change in reference agencies*	Justification for not submitting documents as specified in Annex 1 to GN-21: Change Notification Checklist ◄ R4
SMDR Device listing no(s): DE 005555					

** Applicable for changes to add new models, and revision to indications of use only*

 # Indicate the HSA FSCA Reference no. (e.g. 2020-FSCA-000001*) for changes related to reportable FSCA/ local AE, if applicable.*

ANNEX 4 to GN-21: Change Types Submission Reference List

This Annex lists the change types available for submission of Change Notification applications.

Refer to flowcharts under Section 3 of this Guidance, for guiding principles in identifying the type and category of Change Notification applicable for each proposed type of change to the registered medical device.

1. Change in Manufacturing Facility, Process and Quality Management System
1A R4.8 ► Addition, deletion, or shift/change of manufacturing and/or sterilisation facilities with no change to specifications of a registered medical device and/or sterilisation process ◄
1B Changes in the manufacturing process to Additive Manufacturing (3D-printing), or to refurbish a registered device
1C Changes in the manufacturing site and/or processes that result in a change in specifications of a registered medical device
1D Changes in sterilisation method and related processes
1E Update of QMS certificate validity date

2. Changes in Design or Specifications of a registered medical device
2Ai All changes to the control mechanisms, operating principles, sterile primary packaging and/or design characteristics of a registered medical device
2Aii - Unless the change only involves minor software changes, such as: • Software changes solely to correct an inadvertent software error which does not add new functions, does not pose any safety risk and is intended to bring the system to specification • Software changes which augment interfacing to other non-medical peripherals such as printers or VDUs and which has no diagnostic or therapeutic function • Software changes which only modifies the appearance of the user interface with no risk to diagnostic or therapeutic function of the device • R4.3 ► Software changes solely to address a cybersecurity vulnerability ◄
2B All changes in specifications of a registered medical device

3. Changes to materials in a General Medical Device
3A All changes to type, source, processing and/or supplier of biological materials (including cells, tissues and/or derivatives of animal, human, microbial or recombinant origin) without a change in the intended purpose of the biological material
3Bi All changes to materials or material formulation (of non-biological origin), including changes to device coating or surface modification techniques, that involve materials that make direct/indirect contact with body tissues and fluids, or are absorbed by the body, with no change in device performance specifications
3Bii - Unless the material has been reviewed in a previous device application and the new material has the same nature of body contact and contact duration
3C All changes to materials that are used for shielding in medical devices emitting ionising radiation
3D All changes to concentration or drug specifications of medicinal substances in medical devices that incorporate medicinal substances in an ancillary role

4. Changes to materials in an In Vitro Diagnostic (IVD) Medical Device
4A All changes to material (including chemical and biological substances) which results in a change to the performance specifications of the registered *in vitro* diagnostic (IVD) medical device

5. Changes to labelling of medical device
5Ai All changes to the labelling of medical devices that involve addition and/or revision of the approved indications for use
5Aii Changes only involves a reduction of indications for use
5Bi R4.8► All changes to the labelling of medical devices that involves removal and/or revision of warnings, precautions, contraindications and/or adverse events ◄
5Bii R4.8► Changes only involves addition of contraindications, warnings, precautions and/or adverse events ◄
5C Labelling changes that modify the approved method of use
5D Labelling changes that involves rephrasing of existing information in instructions for use
R4.3► **5E** ◄ Other labelling changes

6. Changes to registered medical devices listing information
6Ai Addition of new medical devices to a device listing
6Aii - Unless change only involves the addition of new devices of the same design, that only involves: • New models within the existing range of sizes already registered • An increase or reduction in the number of identical devices in a pack of a registered device without breach of individual primary packaging • An increase or reduction of volume that does not affect specifications of device (e.g. shelf life, stability, performance and sterility). • Addition of models due to repackaging of existing models within the same SMDR listing in different combinations without breach of individual primary packaging
6Aiii - Unless change involves an addition of new device or software identifier with no change to the performance characteristics or specifications of the device
6Aiv - Unless changes only involves the addition of Class A medical device accessories that complement the registered medical device as a closed system
6B All deletion of models from device listing
6C All changes to product name AND/OR product identifier
6D All changes to product owner, including changes to product owner name and address

HEALTH SCIENCES AUTHORITY

Health Products Regulation Group
Blood Services Group
Applied Sciences Group

www.hsa.gov.sg

Contact Information:

Medical Devices Cluster
Health Products Regulation Group
Health Sciences Authority

11 Biopolis Way, #11-03 Helios
Singapore 138667
www.hsa.gov.sg

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Health Sciences Authority