



# CLINICAL TRIAL

## Regulatory requirements for Medical Device Clinical Trials

For SingHealth Cluster

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**MAY NG**  
Group CEO

## ARQon Group 8 years, MedtechBOSS 3 years, IMDS Group 3 years

- 2 years as Product Manager for IVDs, Poison & Radiation device
- 10 years in **Singapore Health Science Authority (HSA)**, established Singapore registration, approved 1400 devices, key authoring guidances CSDT & GDPMDS
- 4 years in **Biosensors, Regulatory Director drug eluting stent** for:
  - **Product registration** in *Asia, Europe and global countries*
  - **Regulatory compliance** from *product design, manufacturing and distribution (DHF/DD/TF, Clinical trial, Customs, Labelling, Product changes, Recall)*
  - **Technical documentation & Site compliance from regulator audit** (*EU DEKRA, TUV SUD, KR MFDS, AU TGA, JP PMDA, BZ ANVISA, SG HSA*)

## Education

- Grad Dip (Medtech Manufacturing) in A\*STAR Simtech, Singapore
- MSc (Biomed. Eng) in NTU, BSc (Biochem & Microbio) in UPM Malaysia

## External roles

- **SG (NHIC, A\*STAR, IPI, NUS), Korea (KHIDI)** - Regulatory & quality advisor
- **ASEANMed** – Co chair
- **US-ASEAN Planning Medical device committee** - ASEANMed rep
- **China-ASEAN Medical Cooperation Committee** - Singapore Rep
- **Trainer to Authorities & International speaker:** HKMDD, TFDA, TH FDA, SFDA, etc
- **Past committees:** AHWP, ACCSQ-MDPWG, ARPA, RAPro, PMO's TEC, SMF Council

## Disclaimer and Acknowledgement

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Resource information also from:

- HSA
- IMDRF

# CONTENTS

- Medical Device Definition & Classification
- Clinical Research Requirements
- Adverse Event Reporting
- Q&A

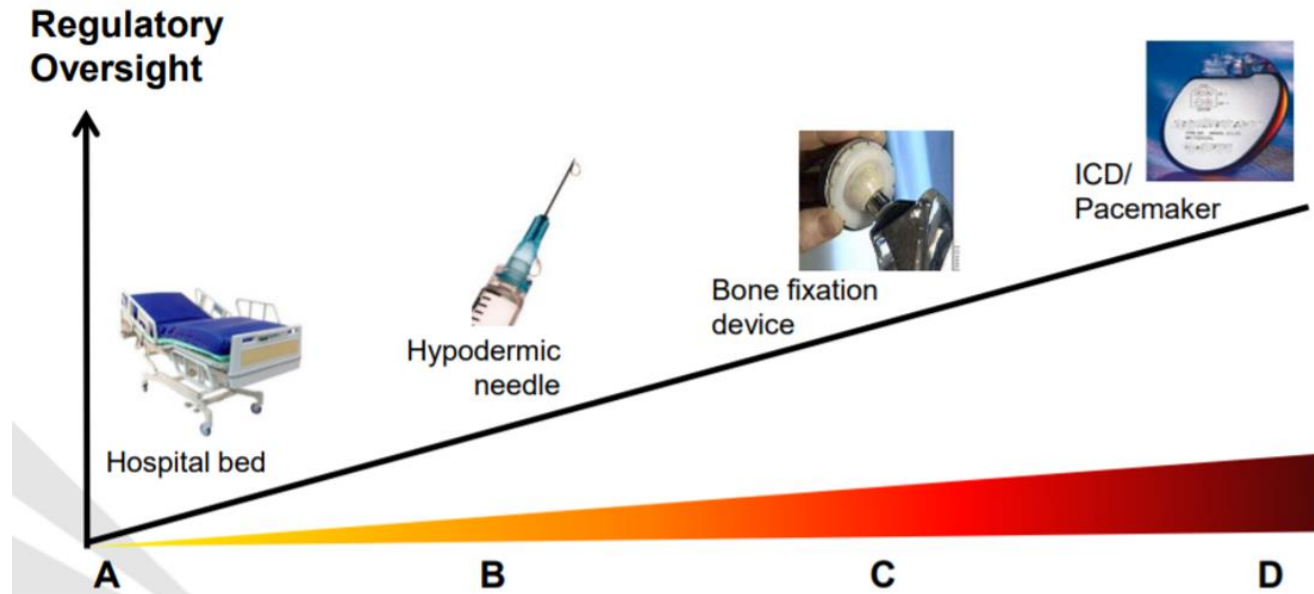
# Medical Device Definition

MEDICAL DEVICE (as set out in the HPA): means

- (a) any instrument, apparatus, implement, machine, appliance, implant, reagent for in vitro use, software, material or other similar or related article that is intended by its manufacturer to be used, whether alone or in combination, for humans for one or more of the specific purposes of: (i) diagnosis, prevention, monitoring, treatment or alleviation of disease;
- (ii) diagnosis, monitoring, treatment or alleviation of, or compensation for, an injury;
- (iii) investigation, replacement, modification or support of the anatomy or of a physiological process, mainly for medical purposes;
- (iv) supporting or sustaining life;
- (v) control of conception;
- (vi) disinfection of medical devices; or
- (vii) providing information by means of in vitro examination of specimens derived from the human body, for medical or diagnostic purposes, and which does not achieve its primary intended action in or on the human body by pharmacological, immunological or metabolic means, but which may be assisted in its intended function by such means; and
- (b) the following articles: (i) any implant for the modification or fixation of any body part; (ii) any injectable dermal filler or mucous membrane filler; (iii) any instrument, apparatus, implement, machine or appliance intended to be used for the removal or degradation of fat by invasive means.

# Medical Device Risk Classification

Medical Devices were categorized into **4 risk classes**, aligned with the international **rule-based** classification system



HSA Classification also according to guidelines of **International Medical Device Regulatory Forum (IMDRF)**

# Medical Device Risk Classification

**Table A4.1 Examples of medical devices by risk class<sup>a</sup>**

Class	Risk	Examples
<b>A</b>	Low	Syringes, examination gloves, patient hoists, stethoscopes, wheelchairs, IVD instruments, microbiological culture media
<b>B</b>	Low–moderate	Surgical gloves, infusion sets, pregnancy tests
<b>C</b>	Moderate–high	Condoms (unless with spermicide (class D)), infusion pumps, neonatal incubators, therapeutic and diagnostic X-ray, lung ventilators, haemodialysers, anaesthesia equipment, self-test glucose strips, IVDs for the diagnosis of <i>Neisseria gonorrhoea</i>
<b>D</b>	High	Implantable cardioverter defibrillators, pacemakers, breast implants, angioplasty balloon catheters, spinal needle, IVDs for the diagnosis of HIV, hepatitis C or hepatitis B

<sup>a</sup> The actual classification of each device depends on the claims made by the manufacturer for its intended use and the technology or technologies it utilizes. As an aid to interpreting the purpose of each rule, illustrative examples of medical devices that should conform to the rule have been provided in the table above. However, it must be emphasized that a manufacturer of such a device should not rely on it appearing as an example but should instead make an independent decision on classification taking account of its particular design and intended use.



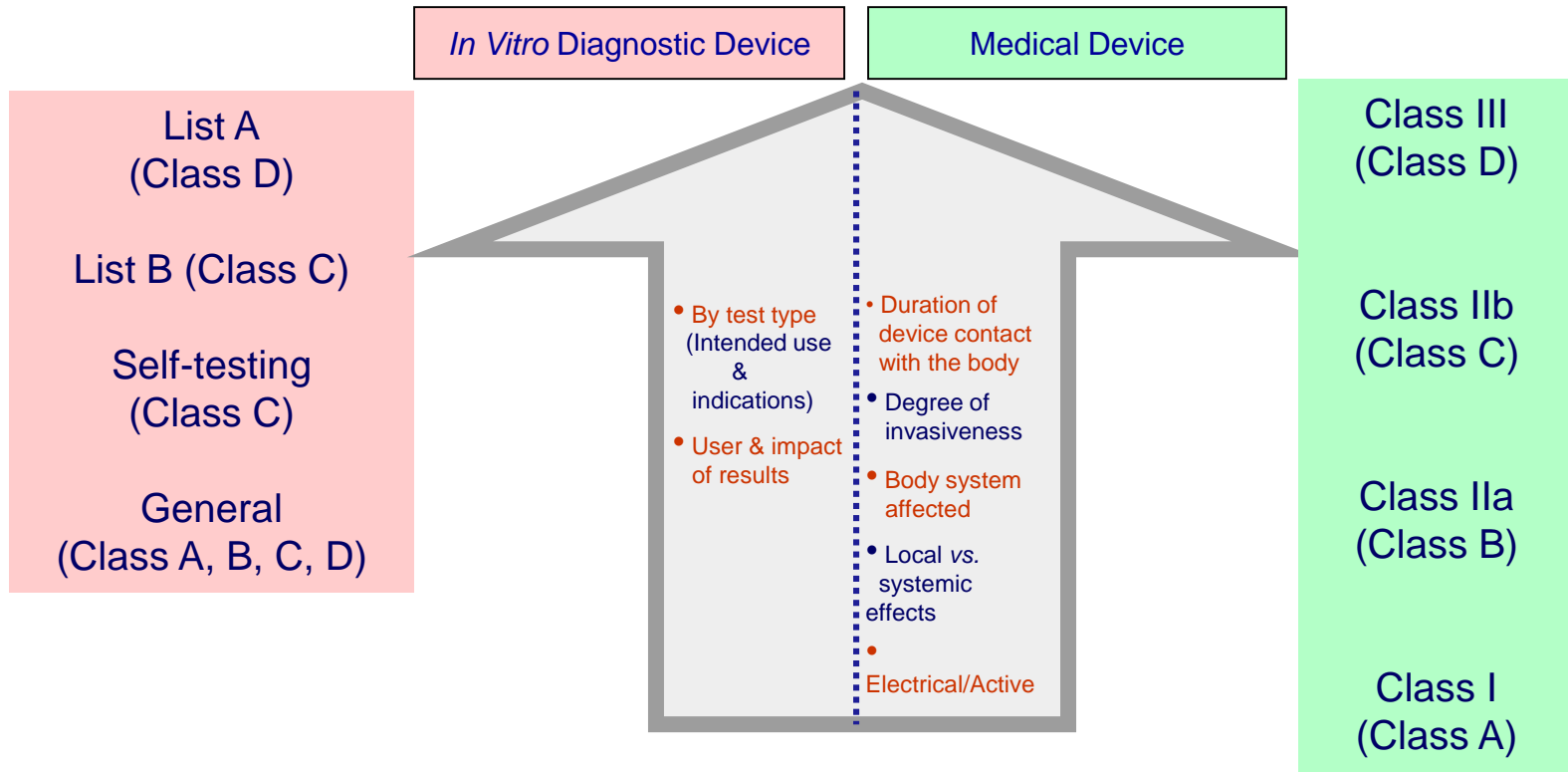
# Medical Device Risk Classification

COUNTRY	United States	Europe	Canada	Australia	Singapore
<b>Philosophy</b>	Risk based Classification				
<b>Reg. Framework</b>	<ul style="list-style-type: none"> <li>• Food, Drug &amp; Cosmetics Act 1976</li> <li>• Code of Federal Register (CFR)</li> </ul>	<ul style="list-style-type: none"> <li>• AIMD 90/385/EEC</li> <li>• MDD 93/42/EEC</li> <li>• IVDD 98/79/EEC</li> <li>• MDR &amp; IVDR</li> </ul>	<ul style="list-style-type: none"> <li>• Food &amp; Drugs Act</li> <li>• Medical Device Regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Therapeutics Good Act 1989</li> <li>• Therapeutics Good (MDs) Regulations 2002</li> </ul>	<ul style="list-style-type: none"> <li>• Health Products Act 1989</li> <li>• Medical Device Regulations</li> </ul>
<b>Classification Systems</b>	Class I (Exempt + General Controls) Class II (Gen + Special Controls) Class III (Gen + Special Controls + PMA)	Class I, IIA, IIB, III Class A, B, C, D (4 Classes)	Class I, II, III, IV (4 Classes)	Class I, IIA, IIB, III Class A, B, C, D (4 Classes)	Class A, B, C, D (4 Classes)
<b>Conformity Assessment</b>	<ul style="list-style-type: none"> <li>• Premarket Approval (PMA) by FDA</li> <li>• Premarket Notification (510k) by FDA and 3<sup>rd</sup> parties accredited by FDA</li> <li>• Quality System</li> <li>• Vigilance Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation by Notified Bodies</li> <li>• Conformity assessment/MQMS/ Type Testing</li> <li>• Vigilance Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation by Health Canada</li> <li>• Quality System (MDSAP mandatory)</li> <li>• Vigilance Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation by Notified Bodies or Competent Authority for Class III, Combinations, Local manufactured</li> <li>• Conformity assessment/QMS/ Type Testing</li> <li>• Vigilance Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Full Evaluation</li> <li>• Abridged Evaluation (Benchmarked GHTF/IMDRF)</li> <li>• Quality System</li> <li>• Vigilance Reporting</li> </ul>

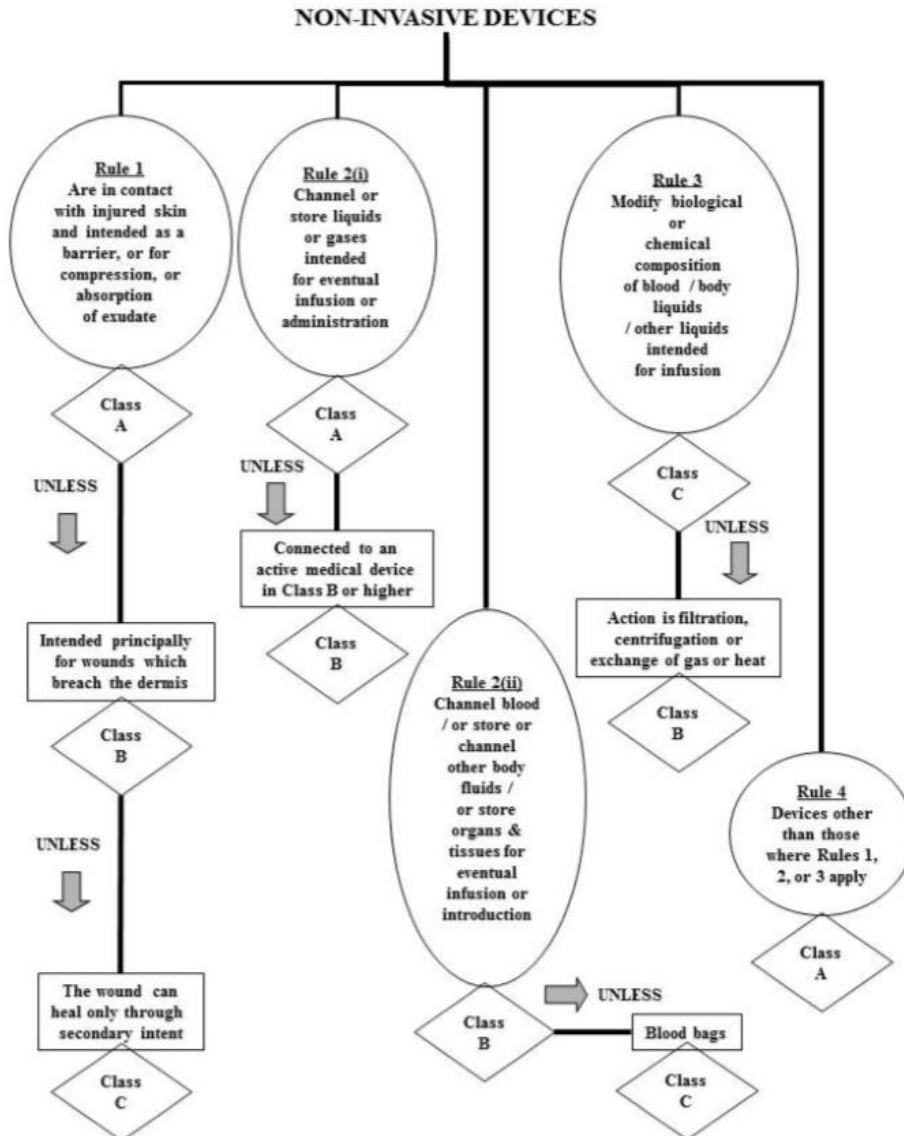


# Medical Device Risk Classification

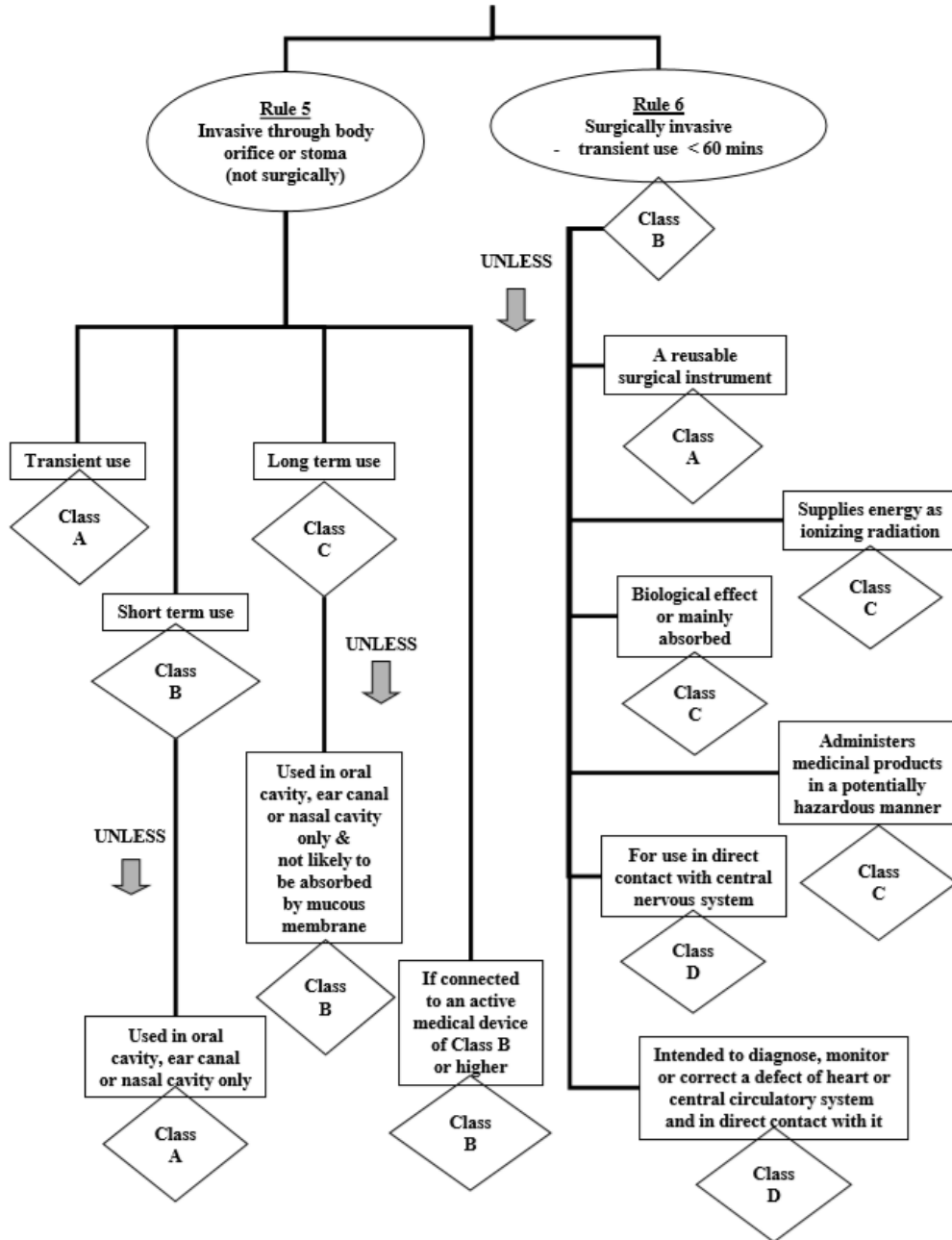
## Product risk classification IVD and MD



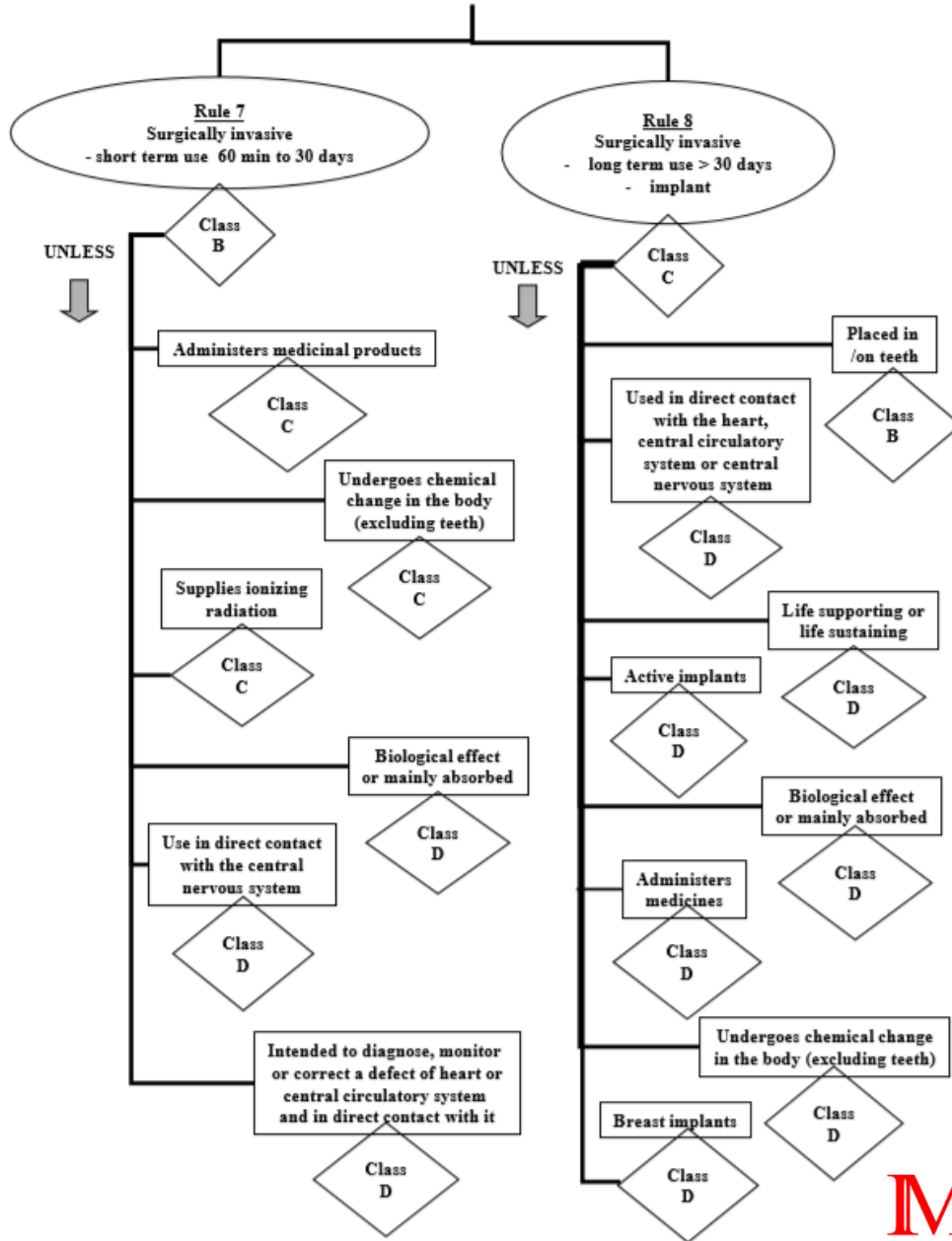
# Medical Device Risk Classification



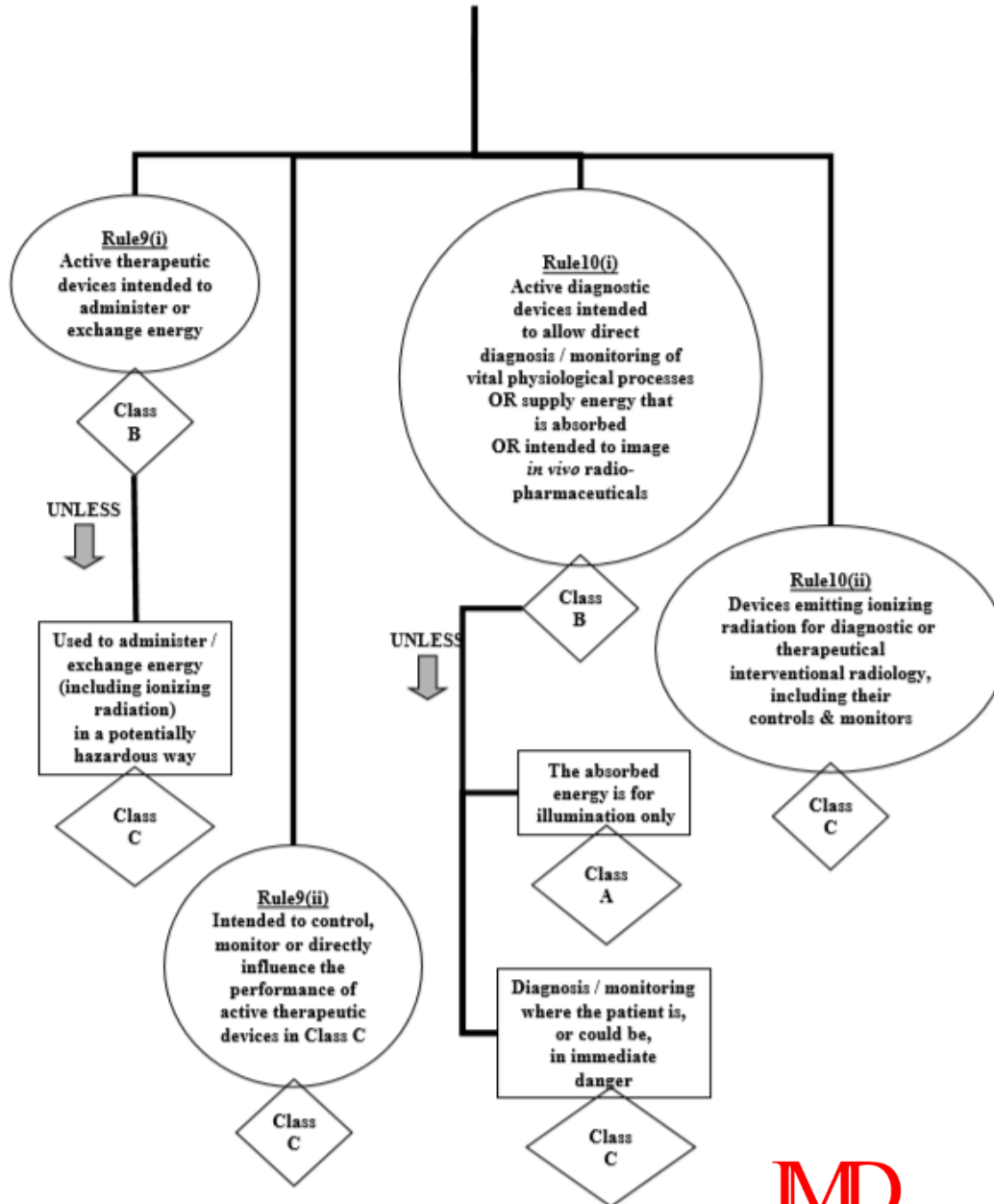
# INVASIVE DEVICES (1 of 2)



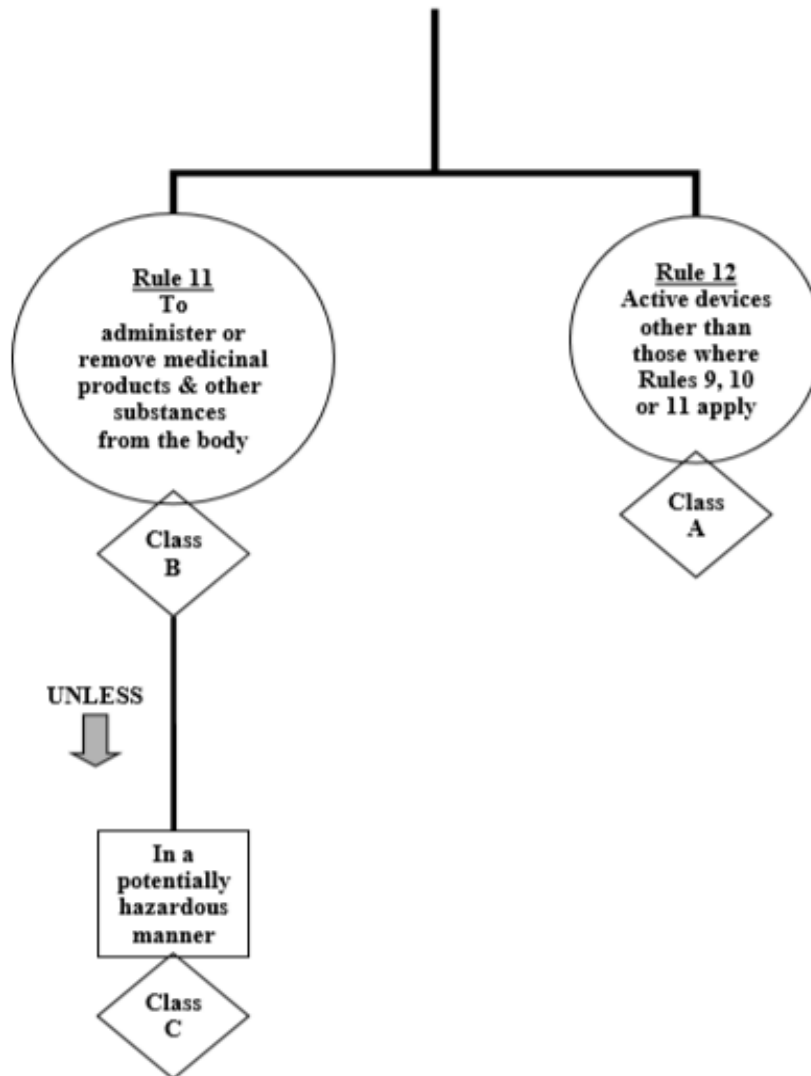
## INVASIVE DEVICES (2 of 2)



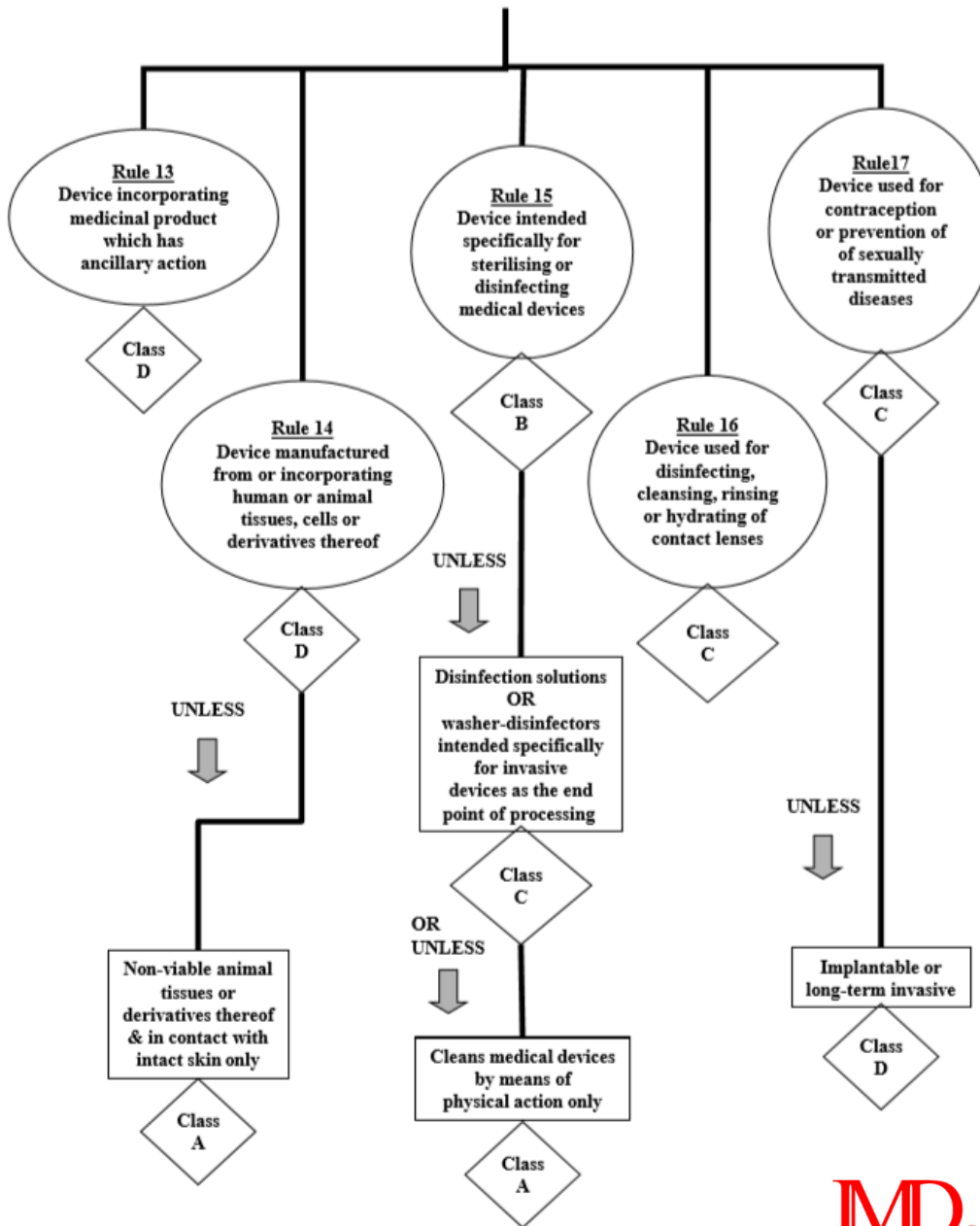
# ACTIVE DEVICES (1 of 2)



## ACTIVE DEVICES (2 of 2)

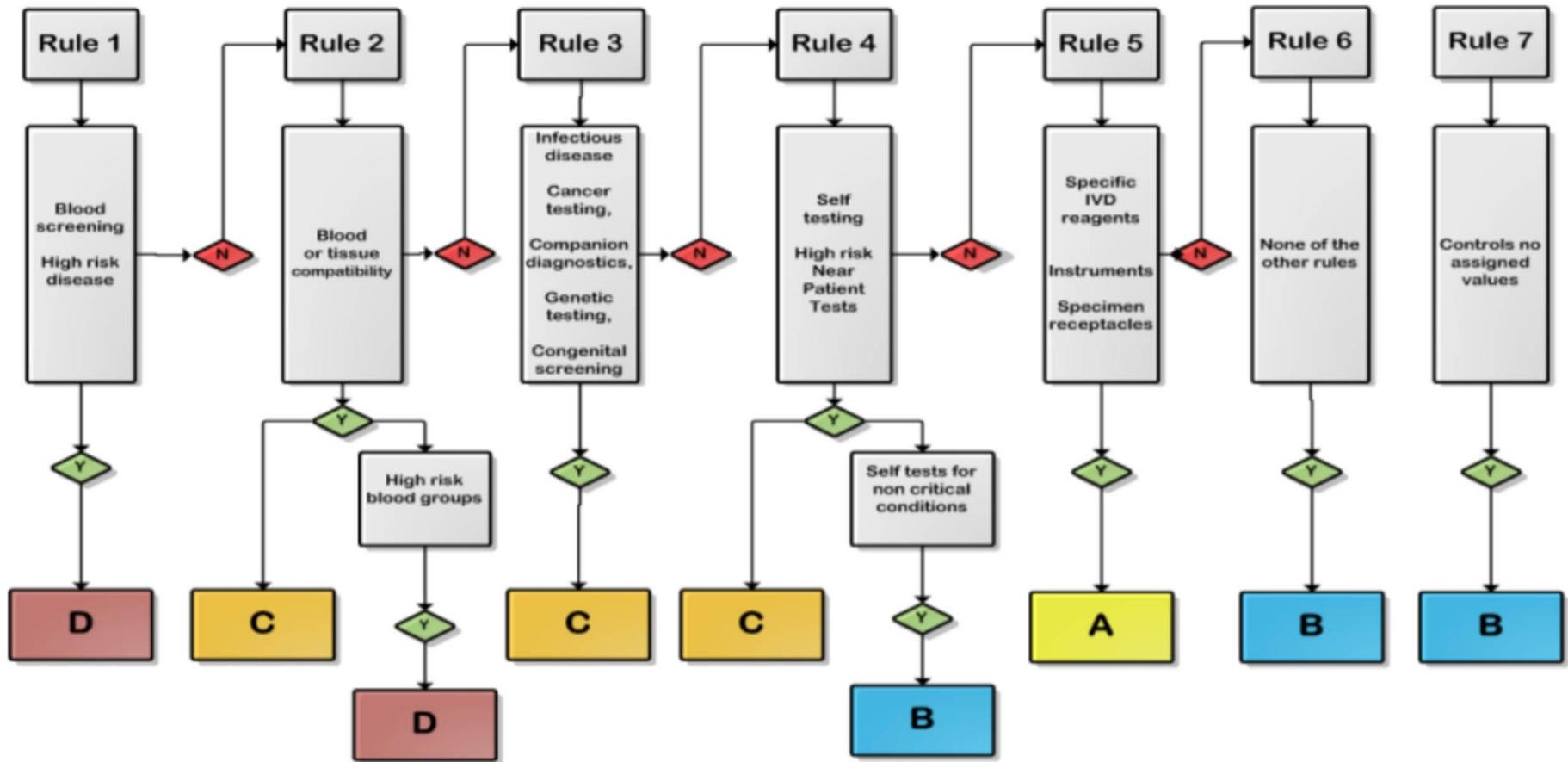


# ADDITIONAL RULES


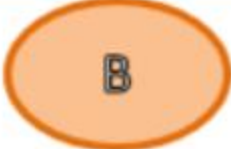
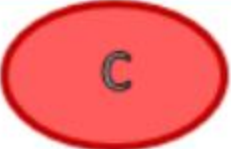





# Risk Classification for IVD



# Risk Classification for Software

Low Risk	Increasing risk	High Risk	
			
<ul style="list-style-type: none"><li>Software or app that does not measure, analyze or monitor patient parameters and solely displays patient physiological parameters /images derived from another device (e.g. patient monitor)</li></ul>	<ul style="list-style-type: none"><li>App used for measurement of heart rate and ECG – single measurements</li><li>Software for prediction of low blood glucose level episodes in patients based on past glucose measurements &amp; diet</li></ul>	<ul style="list-style-type: none"><li>App used for continuous / live measurement and monitoring of ECG and irregular heart rate management in cardiac patients</li><li>Apps for measurement of blood glucose in whole blood and recommendation of medication dosage</li></ul>	N.A.

**Table 1:** Examples of Telehealth Medical Devices of various risk classes.

# Singapore MOH Artificial Intelligence in Healthcare Guidelines (AIHGle)

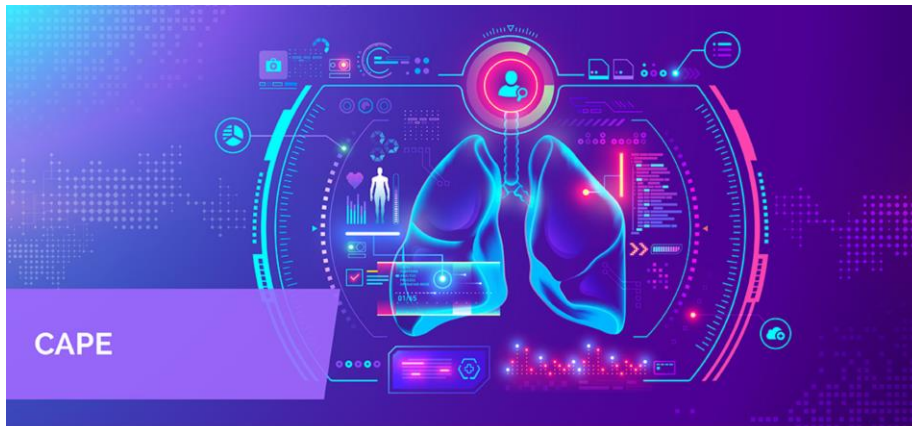
Artificial Intelligence (AI) is increasingly being used throughout the healthcare continuum – from administration, to clinical decision support to increase system efficiency and improve patient outcomes. However, alongside the benefits are also risks and ethical concerns if AI is not safely designed and implemented.

To support patient safety and improve trust in the use of AI in healthcare, the Ministry of Health (MOH), the Health Sciences Authority (HSA), and the Integrated Health Information Systems (IHIS) co-developed the MOH Artificial Intelligence in Healthcare Guidelines (AIHGle) (read as 'agile').

The Guidelines:



- a) **Share good practices with AI developers** (e.g. manufacturers or companies) and **AI implementers** (e.g. healthcare institutions – hospitals, clinics, laboratories); and
- b) **Complement HSA's regulations of AI-Medical Devices (AI-MDs)**.



Community Acquired Pneumonia and COVID-19 Artificial Intelligence (AI) Predictive Engine (CAPE)



The Singapore Eye LEsion Analyzer, or SELENA

# Singapore MOH Artificial Intelligence in Healthcare Guidelines (AIHGle)

## Development



### Design

- » Obtain clinical and end-user input
- » Ensure testing datasets are representative
- » Secure-by-design: Prepare to prevent, detect, respond, and recover from cybersecurity risks



### Build

- » Adopt appropriate development standards (e.g. risk and quality management systems)
- » Ensure version control for iterative builds
- » Incorporate self-validation mechanisms



### Test

- » Validate on retrospective and representative data
- » Peer-review of validation results
- » Document how the AI should be incorporated into clinical workflows

## Implementation



### Use

- » Ensure clinical governance and Organisational Leadership<sup>[2]</sup> approvals (e.g. Chairman, Medical Board (or equivalent))
- » Track performance at the point of deployment “ground-truthing”
- » Be transparent to the end-user that an AI is in use and be able to explain AI decisions



### Monitor

- » Continue performance monitoring post deployment
- » Set escalation thresholds and pathways
- » Establish processes to receive, respond, and investigate any adverse events



### Review

- » Implement regular and ad-hoc reviews for safety, efficacy, and utility
- » Perform periodic maintenance (e.g. cybersecurity vulnerabilities, data handling)

## HSA Guidelines:

- HSA GN-13: Guidance on the Risk Classification of General Medical Devices
- HSA GN-15: Guidance on Medical Device Product Registration
- HSA Regulatory Guidelines for Telehealth Products
- HSA Regulatory Guidelines for Software Medical Devices – A Life Cycle Approach
- HSA GN-14: Guidance on the Risk Classification of In Vitro Diagnostic Medical Devices

## In collaboration with HSA:

- SSC TR 67:2018 Connected Medical Device Security
- MOH Artificial Intelligence in Healthcare Guidelines (AIHGle)

<https://www.hsa.gov.sg/medical-devices/registration/risk-classification>

1 What type of medical device are you registering?

- General medical device
- In vitro diagnostic (IVD) medical device

*Note: For standalone software, where it controls or influences the output of a separate IVD device, risk classification is same as IVD device*

CONTINUE

## PUBLIC ENQUIRY - SINGAPORE MEDICAL DEVICE REGISTER (SMDR)

Medical Device	Device Category	Registrant	Product Owner	Importer	Wholesaler	Local Manufacturer	Advanced Search
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### Medical Device

[0-9](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [All](#)

0-9

[1stQ AddOn Intraocular Lens \(Spherical\) \[1stQ GmbH\]](#), 1stQ AddOn IOLs are intended for implantation i...

[1stQ AddOn Intraocular Lens \(Toric\) \[1stQ GmbH\]](#), All 1stQ AddOn IOLs are indicated for implantation ...

[3-D Matrix PuraStat®/Absorbable Haemostat \[3-D Matrix Europe SAS\]](#), PuraStat is indicated for haemosta...

[3A Health Care OMRON Compressor Nebulizer with Nasal Aspirator \[3A HEALTH CARE S.r.l.\]](#), The intended...

[3D-Shaper Medical S.L. 3D-SHAPER \[3D-SHAPER MEDICAL SL\]](#), 3D-SHAPER is a stand-alone medical software...

[3M Bair Hugger™ Temperature Monitoring System \[3M Company\]](#), Measure, monitor, and trend body tempera...

[3M Deutschland Dental Restorative Materials \[3M Deutschland GmbH\]](#), Liquid compounds specially design...

[3M ESPE Adper™ Easy One Self-Etch Adhesive \[3M Deutschland GmbH\]](#), It is indicated for all classes of...

[3M ESPE Adper™ Prompt™ / Adper™ Prompt™ L-Pop™ Self-Etch Adhesive \[3M Deutschland GmbH\]](#), It is inten...

[3M ESPE Adper™ Scotchbond™ Multipurpose Adhesive \[3M ESPE\]](#), The Adper Scotchbond Multi-purpose adhes...

Total 19137 matching record(s)

Page  of 1914 [Go](#) [first] | [previous] | [next](#) | [last](#)

**Note: All device listings on the Singapore Medical Device Register (SMDR) are active. Class A medical devices are not registered in the SMDR. To retrieve Class A medical devices, please visit [Class A Medical Device Database](#).**

Singapore Medical Device Register  
(SMDR)

[Class A](#)

[Class B/C/D](#)



# Local Authorities & Industry with IMDS

## – Supporting Innovation ie Digital Medical Device

Regulator

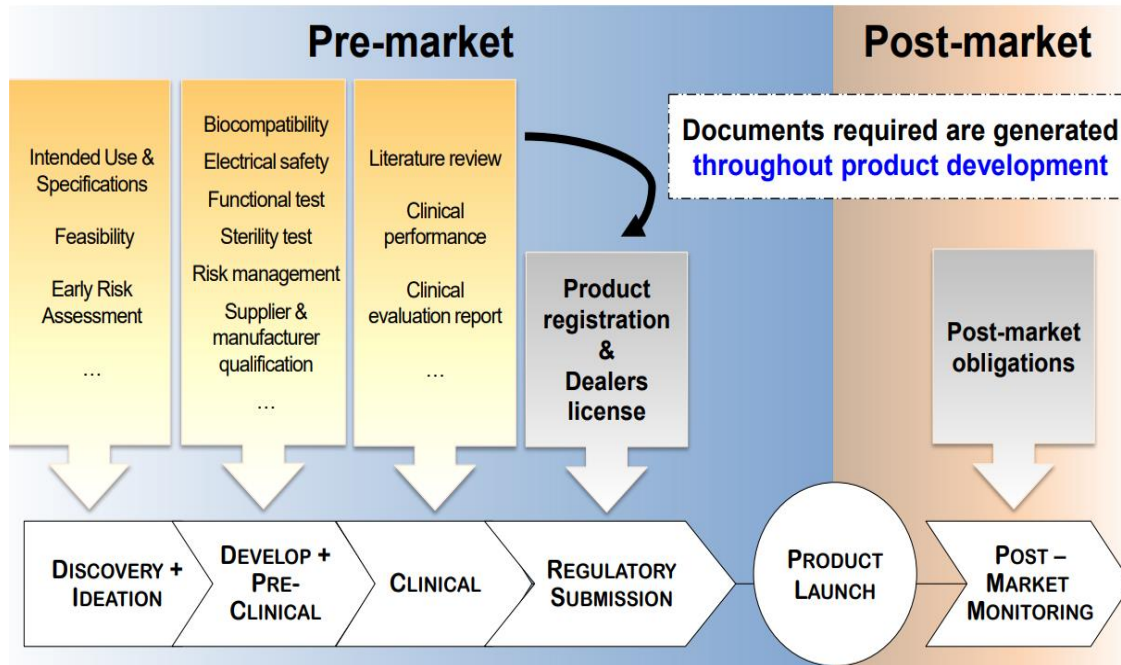


**SUPPORTING INNOVATION AND  
FASTER ACCESS TO SAFE  
MEDICAL DEVICES**

Industry

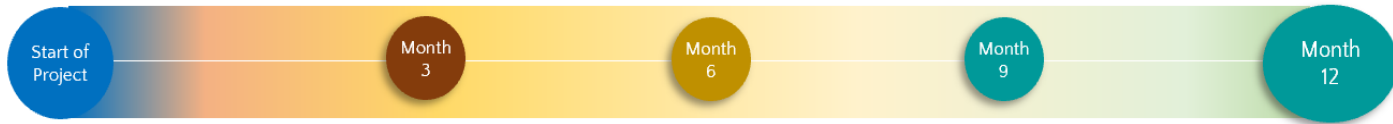


**Program overview of medical devices  
lifecycle, from R&D to  
commercialization for MEDTECH  
PROFESSIONALS.**



# MEDTECH START-UP REGULATORY ROADMAP

HELP YOUR PRODUCT DEVELOPMENT TEAM TO SET UP MDF AND QMS



**Step 1:** Local/Global Regulatory Strategy

**Global Regulatory Strategy**  
eg Countries, Class, Clinical, QMS (**consultation**)

**Step 2:** Quality Management System

Quality Management System  
(**set up medical device design & development procedures**)

**QMS (application)**  
to Certification body (if required eg ISO13485, EU MDR/IVDR, USQSR)

**QMS (Audit)** by certification body or relevant body

**QMS (Obtaining Certification)**

**Step 3:** Medical Device File

Medical Device File (**set-up medical device documentations**)

**Step 4:** Local/Global Product Registration

SG HSA: Product Registration (**Dossier preparation**)

SG HSA: Product registration (**Dossier submission**)

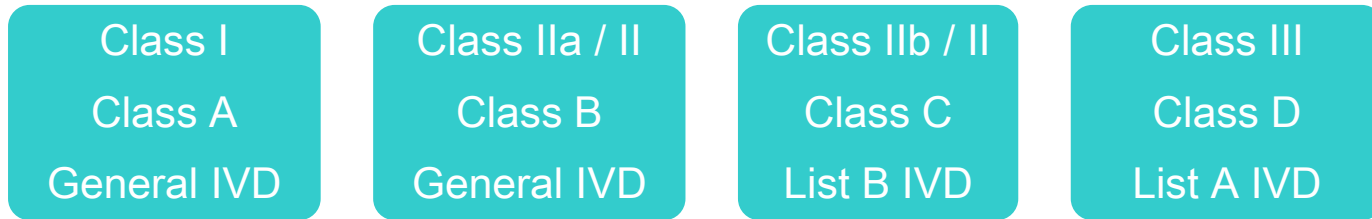
CE Notified Body: Product Registration (**Dossier preparation**)

CE Notified Body: Product registration (**Dossier Submission**)



# Product Registration in ASEAN Countries

## Global/Asia Registration



**01** Risk classification, exemption/registration, documents & lead time

**03** Appoint In-Country Representative for Product License holding (ARQon)

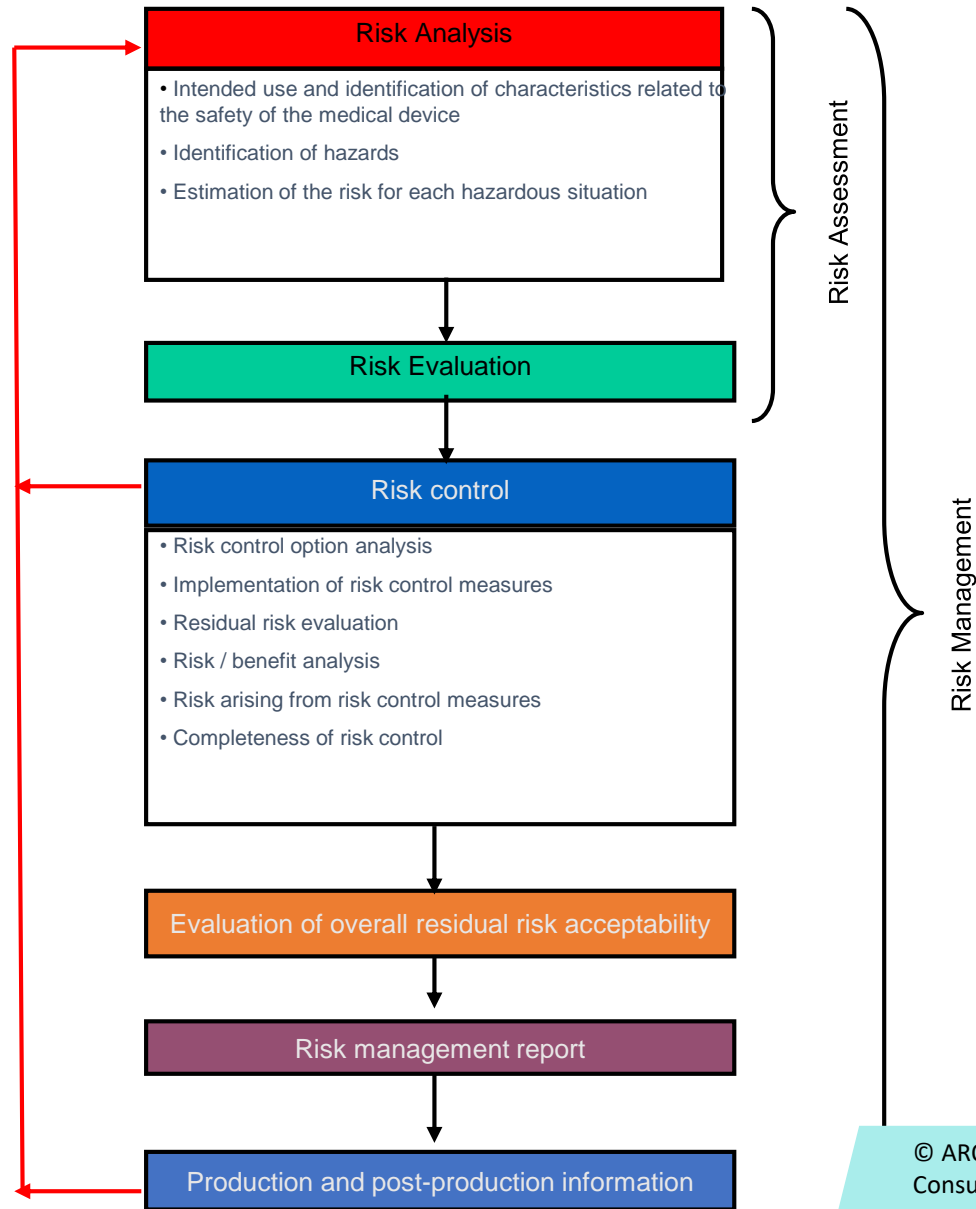
**05** Product Approval



**02** Preparation of Technical Documents

**04** Product Registration by Local Authorised Rep.

# Risk Management based on ISO14971



# Design Failure Mode and Effects Analysis (DFMEA)

No.	Item and Item Function	Potential Failure Mode	Potential Effects of Failure	Severity	Potential Cause(s)/ Mechanisms of Failure	Likelihood	Risk Index (H/M/L)

List the component/ module /system to be analyzed & its intended function

Identify the failure mode associated with Item Function being delivered

Identify the impact of the failure to the end user:

- Injury
- Performance Issue

Identify the root cause of the failure

Assign the severity & likelihood

Calculate the Risk Index based on the severity and likelihood ratings.

# CONTENTS

- Medical Device Definition & Classification
- Clinical Research Requirements
- Adverse Event Reporting
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# Clinical Trial & CRM Regulations

**Clinical Trial regulations** are intended:

to regulate **the conduct** of regulated clinical trials, including the parties (e.g., sponsor, investigator) critical to ensuring that clinical trials are conducted in accordance with Good Clinical Practice.

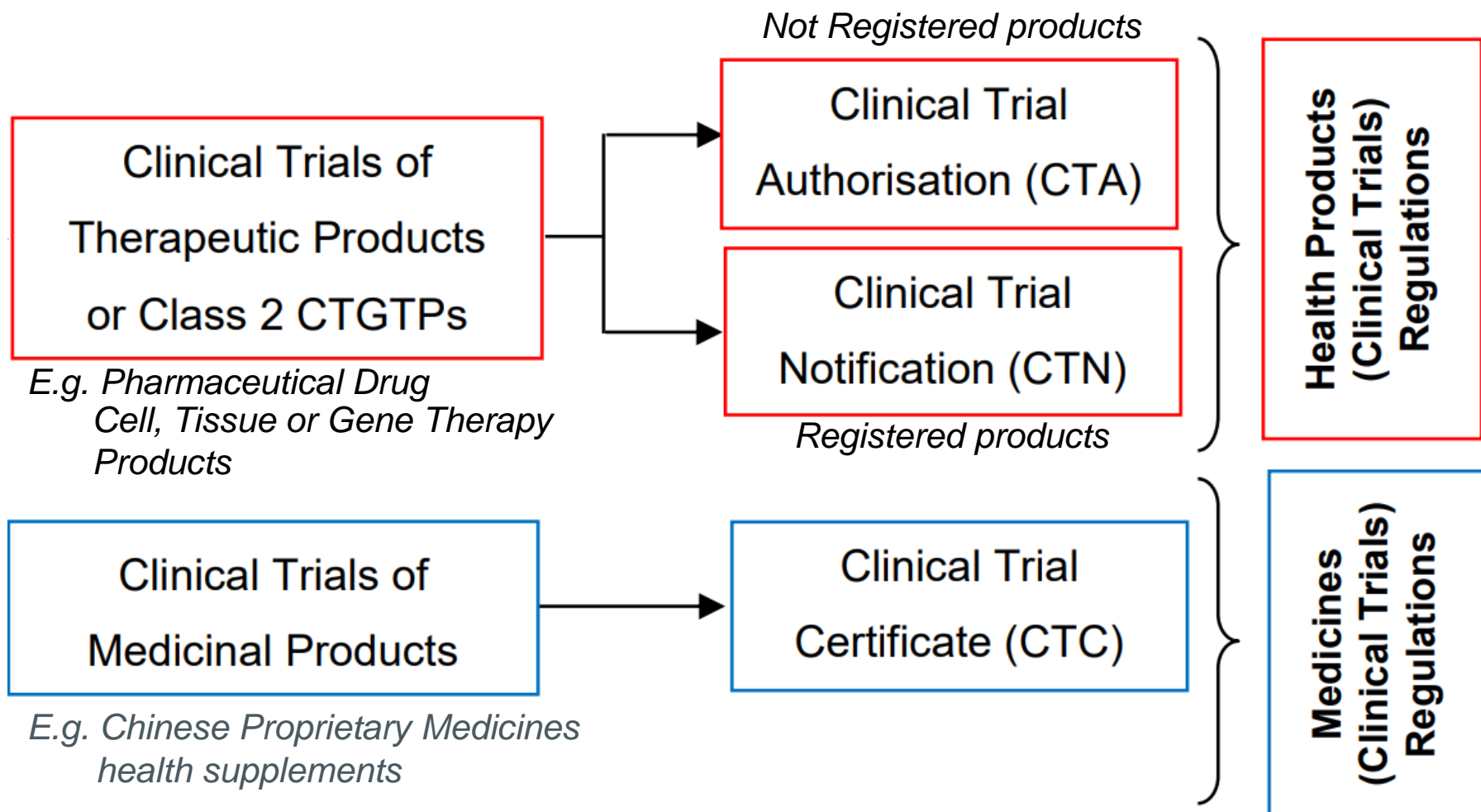
**CRM regulations** are intended:

to regulate **the product and dealers** (manufacturers, importers, suppliers) and to **safeguard the supply chain** relating to health products/medicinal products that are imported, locally manufactured or supplied for use in clinical research.



# A) Clinical Trial submission to HSA - REQUIRED

## Regulated Clinical Trial



# A) Clinical Trial submission to HSA – NOT REQUIRED

## Not Regulated Clinical Trial

- (i) observational clinical trials of therapeutic products, Class 2 CTGTPs or medicinal products;
- (ii) clinical studies in which therapeutic products or medicinal products are used for a known effect, and are not the subject of investigation for potential efficacy, safety, pharmacokinetics etc.;
- (iii) medical device clinical trials; or
- (iv) food and nutrition studies involving the use of medical devices

Class 1 CTGTP means a CTGTP that —

- (a) is the result of only minimal manipulation of human cell or tissue;
- (b) is intended for homologous use;
- (c) is not combined or used with a therapeutic product or a medical device; and
- (d) is assigned by HSA as a Class 1 CTGTP due to a lower health risk to a user of the product.

*NB: Clinical trials of Class 1 CTGTP will be regulated under the Human Biomedical Research Act.*

# B) Clinical Research Material submission to HSA - REQUIRED

## Clinical Research Material Notification

**Clinical research** means any research involving **human subjects**.

**CRM** means any registered or unregistered TP, MP, MD, applicable CTGTP, or placebo, that is manufactured, imported or supplied for the purpose of being used in clinical research, by way of administration to a trial participant in accordance with the research protocol or for a clinical purpose.

CRM may be imported, locally manufactured or procured from local commercial sources.

# B) Clinical Research Material submission to HSA - REQUIRED

## Clinical Research Material Notification

Product type	Key regulations for CRM
Therapeutic products  * <u>Class 2 CTGTPs</u>  * <u>Class 1 CTGTPs for which a manufacturer/ importer/ wholesaler notification has not been made to HSA</u>	<a href="#">Health Products (Clinical Research Materials) Regulations</a> ↗
Medicinal products	<a href="#">Medicines (Medicinal Products as Clinical Research Materials) Regulations</a> ↗
Medical devices	<a href="#">Health Products (Medical Devices) Regulations</a> ↗

# B) Clinical Research Material submission – NOT REQUIRED

## Not Required CRM notification

- Locally registered CRM obtained from local commercial sources
- Import of locally registered CRM for local clinical research use if the importer already has a valid importer's licence for the import of CRM
- Supply of a locally registered CRM by its local manufacturer for local clinical research use if the manufacturer has a valid manufacturer's licence
- Supply of CRM by a local manufacturer if the manufacture of the CRM being supplied comprises solely of the packaging or labelling of the CRM
- Import of a minimally manipulated CTGTP CRM for local clinical research use by a known importer
- Supply of a minimally manipulated CTGTP CRM by its known manufacturer for local clinical research use

For products imported solely for export to overseas trial sites, CRM notification is not applicable. You would need to apply for an approval to import these products accordingly:

- **Therapeutic products:** Importer's licence for therapeutic products
- **Medical devices:** Import for re-export approval for medical device
- **CTGTP:** Import for re-export for CTGTP

# B) Clinical Research Material submission to HSA – NOT REQUIRED

Category	Examples	Comments / additional notes
Research material that is not a TP, CTGTP, MP or MD	<ul style="list-style-type: none"> <li>Human tissue biopsy samples donated for use in laboratory research and not intended for clinical use</li> <li>Stationery, plastic bags for general use, tablet computers</li> </ul>	<p>Since the research material is not a TP, CTGTP, MP or MD, and therefore not a CRM, the requirements of the Health Products Act, Medicines Act and CRM regulations are not applicable. As such, the importer will not require an <i>Importer's Licence</i> from HSA in order to import the research material. HSA also need not be notified of the import in accordance with the CRM regulations.</p> <p>If you are unsure as to whether the research material / product to be used is a TP, CTGTP, MP or MD, please submit a Health Products Classification Enquiry via <a href="#">HSA website</a>.</p>
<p>Products excluded from the CRM regulations</p> <p>E.g., MP specified in the First Schedule of the Medicines (MP as CRM) Regulations 2016, Class 1 CTGTPs that are manufactured / imported / supplied by known manufacturers / importers / wholesalers</p>	<ul style="list-style-type: none"> <li>Homeopathic medicine</li> <li>Medicated oil and balm</li> <li>Quasi-medicinal products</li> <li>Traditional medicine</li> <li>Herbal remedy</li> <li>Raw materials used as ingredients in the preparation or manufacture of any medicinal product, e.g., active pharmaceutical ingredients, intermediates, excipients</li> </ul>	<p>The First Schedule of the Medicines (Medicinal Products as Clinical Research Materials) Regulations contains a list of medicinal products excluded from the CRM regulations. This list is aligned to the list of medicinal products exempted from product licence and dealers' licensing requirements. As such, an <i>Importer's Licence</i> will not be required under the Medicines Act. HSA also need not be notified of the import in accordance with the CRM regulations.</p> <p>However, if the active pharmaceutical ingredient contains, or is a substance that is listed as a poison under the Poisons Act, a <i>Form A Poisons licence</i> will be required.</p>

# B) Clinical Research Material notification to HSA – NOT REQUIRED

<p>TP, CTGTP, MP or MD that is intended for <b>non-clinical</b> purposes only (e.g., used in laboratory or animal research only and not administered or applied to humans).</p>	<ul style="list-style-type: none"> <li>• A TP that is imported or locally manufactured for toxicology tests in rats</li> <li>• A drug-coated coronary stent (MD) that is imported or locally manufactured for proof-of-concept studies in monkeys</li> <li>• Clinical trial kits containing TP that are imported for disposal or destruction in Singapore</li> </ul>	<p>As the TP, CTGTP, MP or MD is not administered to humans or not intended for a clinical purpose, they are not considered to be CRM. However, the import and supply of the product will be subject to applicable requirements of the Health Products Act, Medicines Act and/or related subsidiary legislation.</p> <p>For TP, companies not holding a valid <i>Importer's Licence</i> and are only importing TP for non-clinical purposes will require an <i>Importer's Licence for Restricted Activity(ies)</i>.</p> <p>For MD, please refer to <i>Special Access Routes</i> for medical devices on <a href="#">HSA website</a>.</p>
<p>TP, MP or MD that is not intended for <b>local</b> clinical research use</p>	<ul style="list-style-type: none"> <li>• TP imported solely for export for use in regional clinical research (not including Singapore as a trial site)</li> <li>• TP that is locally manufactured for export only</li> </ul>	<p>Products that are imported solely for export or manufactured solely for export are not CRM. Therefore, the exceptions and requirements of the CRM regulations are not applicable.</p> <p>For TP, the import-for-export will be governed by the Health Products Act and the Health Products (Therapeutic Products) Regulations. Companies not holding a valid <i>Importer's Licence</i> and are only importing TP solely for export will require an <i>Importer's Licence for Restricted Activity(ies)</i>.</p> <p>For MD, please refer to <i>Special Access Routes</i> for medical devices on <a href="#">HSA website</a>.</p>
<p>TP, MP that is used by participants in the clinical research, but not as an investigational or auxiliary CRM*</p>	<p>Registered TP/MP used as</p> <ul style="list-style-type: none"> <li>• pre-medication</li> <li>• rescue medication</li> <li>• treatment for trial-related adverse events</li> <li>• concomitant medication for co-morbidities</li> </ul>	<p>TP/MP that are not regulated as CRM (i.e., not investigational or auxiliary CRM) will be subject to controls under the Health Products Act, Health Products (Therapeutic Products) Regulations or Medicines Act instead.</p>



# OTHER ADDITIONAL (IF ANY)

Substances	Additional requirements
Controlled drugs and psychotropic substances	<p><a href="#">Licences for controlled drugs and psychotropic substances</a></p> <p><b>Note:</b> CTA/CTN/CTC and/or CRM notification acknowledgement (as applicable) should be provided in the application for the above licences.</p> <p>Upon trial completion, any leftover CRM must be destroyed, and the procedure witnessed by a HSA inspector. If the CRM is to be exported, a corresponding export licence should be applied and issued before the export is made.</p>
Poisons	<p><a href="#">Form A Poisons Licence</a></p> <p><b>Note:</b> CRMs which are therapeutic products are excluded from this requirement.</p>
Radiopharmaceuticals	<p>The import, export, possession, use, transport and disposal of radioactive material is regulated under the Radiation Protection Act by the <a href="#">National Environment Agency</a> .</p>
Radiofrequency	<p><a href="#">Infocomm Media Development Authority (IMDA)</a></p>

# HSA DEALER LICENSE – NOT REQUIRED

<b>Activity</b>	<b>Licence</b>	<b>CRM Notification</b>
<b>Manufacture of CRM</b>	<u>Manufacturer's Licence</u> Not required	<b>CRM Notification</b> required prior to <u>supply</u> of CRM by local manufacturer
<b>Import of CRM</b>	<u>Importer's Licence</u> Not required	<b>CRM Notification</b> required prior to import of CRM
<b>Wholesale of CRM</b>	<u>Wholesaler's Licence</u> Not required	-
<b>Supply of CRM</b>	<u>Product Registration</u> Not required	-

# CRM Notification – Process Flow

	<b>Clinical research not regulated by HSA</b>	<b>Regulated clinical trial</b>
<b>Drafter of CRM notification form</b>	Importer or local manufacturer	Sponsor (on behalf of importer or local manufacturer)
<b>Notification Form (PRISM)</b>	CRM Notification form	Part of CTA/CTN/CTC application form
<b>Endorsement Workflow</b>	Importer/Local manufacturer → Sponsor	Sponsor → Importer/Local Manufacturer (endorsement)
<b>Submitter</b>	Importer or local manufacturer	Sponsor (on behalf of importer or local manufacturer)
<b>Acknowledgment notification</b>	Importer, local manufacturer, sponsor	Importer, local manufacturer, sponsor
<b>Validity period of notification</b>	1 year from the date of notification	Duration of the clinical trial

# CRM Notification – Form

## PT0101 CLINICAL RESEARCH MATERIAL NOTIFICATION

Fill in the application form		<a href="#">Guideline</a>	<a href="#">Help</a>
1. Particulars of Importer / Local Manufacturer	4. Supporting Documents		Special Symbol
2. Particulars of Clinical Research	5. Declaration & Confirmation		Attach
3. Particulars of Clinical Research Materials (CRM)			Save

Next

Fields marked with an asterisk \* are mandatory.

1. Introduction	
1.1 Please select *	<input type="radio"/> Importer of CRM <input type="radio"/> Supply of CRM by Local Manufacturer
1.2 Please select the type of CRM to be imported or supplied *	<input type="checkbox"/> Therapeutic Product <input type="checkbox"/> Medical Device <input type="checkbox"/> Medicinal Product (e.g. Cell- and Tissue-based Product, Complementary Health Products)

### 4. Supporting Documents

To add an attachment, type in the path or hit the browse button. Then **hit the Attach Files button to save the attachment** to the list below.

Please click [here](#) for guideline on document attachment.

Documents	
4.1 IRB Approval Letter :	<input type="text"/> <input type="button" value="Browse..."/>
4.2 Listing of Components in a Medical Device System :	<input type="text"/> <input type="button" value="Browse..."/>
4.3 Packing list for Study-Visits Specific Kits :	<input type="text"/> <input type="button" value="Browse..."/>
4.4 GMP certificate :	<input type="text"/> <input type="button" value="Browse..."/>
4.5 Other Supporting Documents :	<input type="text"/> <input type="button" value="Browse..."/>

# CRM Notification – Form

PZO901 ENQUIRE@PRISM

**Important Notes:**

For HSA CRIS registered companies, user has to be authorised with the appropriate access rights via CRIS management module to access the required eservices.

## Search Criteria

Licence/Permit/Certificate/Listing/Notification/Registration Type *	Clinical Research Material Notification
Status *	Active
Licence/Permit/Certificate/Listing/Notification/Registration No	CRM1600118
Product Name	
Start Date (dd/mm/yyyy)	<input type="text"/> To <input type="text"/>
Expiry Date (dd/mm/yyyy)	<input type="text"/> To <input type="text"/>
<input type="button" value="Search"/>	<input type="button" value="Reset"/>

Please do not access the record using the new window via right mouse click.

1 Matching Record(s)

Page 1 Of 1 [First] | [Previous] | [Next] | [Last]

### Active Clinical Research Material Notification

S/No	HSA Appl No	CRM No	Date of Notification/Approval	Valid Until / Date of Expiry	CTC/CTA/CTN No	Research Reference / Protocol No
1	1601182X	<a href="#">CRM1600118</a>	10/10/2016	09/10/2017		

# CRM Notification – Form

1. Clinical Research Material Notification	
Notification Number	CRM1600118
Notification Date	10/10/2016
Valid Until	09/10/2017

2. Particulars of Importer/Manufacturer			
2.1 Unique Entity No.(UEN)	196400192M		
2.2 Company Name	PFIZER PTE LTD		
<b>2.3 Address</b>			
2.3.1 Address Type:	Local		
2.3.2 Postal Code: *	189721		
2.3.3 Block / House No:	152	2.3.4 Level - Unit: *	# - 00
2.3.5 Street Name:	BEACH RD		
2.3.6 Building Name:	GATEWAY EAST		
2.3.7 Country:	SINGAPORE		
2.4 Company Representative	Paris		
2.5 Designation:	RP		
2.6 Tel.No. :	12341	2.7 Fax.No. :	
2.8 Email:	paris@pfizer.co		

3. Particulars of Clinical Trial/Research	
3.1 Name of Trial/Research Sponsor:	Sponsor Name
<b>Particulars of Clinical Research ( 1 )</b>	
3.2 Title of Clinical Trial/Research:	Title
3.3 Protocol/Research Reference Number:	Ref No
<b>3.4 List of Principal Investigator(s) &amp; Clinical Trial/Research Site(s)</b>	
<b>Principal Investigator(s)</b>	<b>Clinical Trial / Research Site</b>
Ash Chua	National Cancer Centre


4. Particulars of Clinical Research Material (CRM)					
4.2 Medical Device for Investigational Purpose					
No.	Device Name	Type of Medical Device	Identifier	Estimated Total Quantity	Remarks
1	MD	General Medical Device	MD01	1000	

# CONTENT

- Medical Device Definition & Classification
- Clinical Research Requirements
- Adverse Event Reporting
- Q&A

# Adverse Event Reporting

## Adverse event reporting

Submit the [Mandatory Medical Device Adverse Event Reporting Form for Medical Device Dealers](#)  183 KB through [e-mail](#). Keep the email size under 2MB.

Refer to our guides if you are reporting an adverse event:

- [As a healthcare professional](#).
- [In a clinical trial](#).

## When to report

It is mandatory for medical device companies, including product registrants, manufacturers, importers and suppliers, to report any AEs related to the medical devices they deal in.

The following medical device-associated AEs must be reported to us:

Adverse events	Report within
Serious threat to public health	48 hours
Death	10 days
Serious deterioration in state of health	10 days
Possible death or serious injury if the adverse event were to recur	30 days

### HSA Medical Device Branch

<https://www.hsa.gov.sg/medical-devices/adverse-events>

- AE Report form for registered MD
- Voluntary AE Report form

### HSA Clinical Trial Branch

<https://www.hsa.gov.sg/clinical-trials/adverse-events>

- AE Report form for MD Clinical Research
- Non-compliance CRM form.



# CONTENT

- Medical Device Definition & Classification
- Clinical Research Requirements
- Adverse Event Reporting
- Q&A

## What are the CRM records to be in place?

If the records relate to an unregistered MD CRM that is supplied for use in a regulated clinical trial, records of receipt and supply must be kept until the following time-point, whichever is latest:

- when there is no more pending or planned application for registration of the TP or MP that was tested in the clinical trial or research
- 2 years after the last of such registrations has been granted
- 2 years after HSA was informed of the termination of a clinical trial
- 6 years after the completion of a clinical trial (i.e., 6 years after “Last-Patient-Last-Visit), or
- any other period as directed by HSA

If the MD CRM (whether registered or unregistered) is supplied for use in clinical research that is not regulated by HSA, or if the MD CRM is a registered MD, records of receipt and supply must be kept for either

- the projected useful life of the medical device, or
- 2 years after the date on which the medical device was supplied, whichever is the longer period

## **Who is local sponsor**

Local sponsor refers to the local company or local institution which takes responsibility for the initiation, management or financing of the clinical trial.

## **IRB application requirements for Medical Devices?**

Key documents (and other information depends on the IRB)

- Clinical Trial Protocol
- Principal Investigator brochure
- Patient Consent form
- Product information

## **Is it ok to do a limited trial (eg. 10-25 people) using a device sponsored by a pharmaceutical company?**

Yes, CRM notification submission required if it is medical device clinical research.  
Purpose of the trial to be determined

## **DISTRIBUTE OUTSIDE IN-HOUSE USE ONLY?**

When distributed outside Laboratory A, it is not LDT.

Not LDT will be regulated as IVD by HSA.

## **OFF LABEL USE?**

When it is Off-label use IVD, it is not LDT.

Licensed laboratory is responsible for the safety and efficacy of the test.

# Q&A – Ref. HSA and ARQon



## FAQ

Question	Answer
Are the SAR updates applicable to applications submitted before 1 April 2022?	The updates to the Special Access Routes (SAR) for unregistered medical devices are only applicable to SAR applications submitted from 1 April 2022.
For SAR applications that include Class D medical devices that require MOH review as well as other devices that do not require MOH review, will the TAT for the entire application be longer or will those that do not require MOH review be approved first?	Yes, the TAT may be extended for the submitted application as long as it includes Class D medical devices that fall under the specific categories of Class D devices that require review by MOH. As such, please plan accordingly prior to submission.
Who is responsible for submitting the Clinical Justification Review Form to MOH for their review and approval?	All SAR supporting documents, including the Clinical Justification Review Form shall be submitted to HSA via MEDICS. HSA will liaise with MOH directly and MOH will contact applicant directly for any clarifications related to the form. HSA will inform the applicant via MEDICS on the outcome of the SAR application.
After expiry of the GN27 application, is a new GN27 application required if the healthcare facility wishes to continue using the device?	<p>For single-use medical devices and implants, these devices shall not be used by the healthcare facility after expiry of the SAR licence. A new GN27 will be required for continued usage by the HCP. As such, companies are recommended to manage their inventories accordingly and only supply the quantity of device that is required by the healthcare facility.</p> <p>For equipment and reusable devices, users can continue to use these devices after expiry of the SAR licence. A new SAR application will not be required.</p>



***Focus group or Interest on***

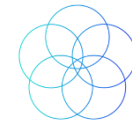
<https://www.imdsgroup.com/contact>



***1. LDT Public consultation. In-house MD?***

***2. B2B International Medical Digital Platform***

- *Forum Connection for medtech professionals*
- *E-Commerce for medtech companies*





Medical Device Approval



Drug/Cosmetic Approval



Radiation/Telcom Approval



Technical File/ISO



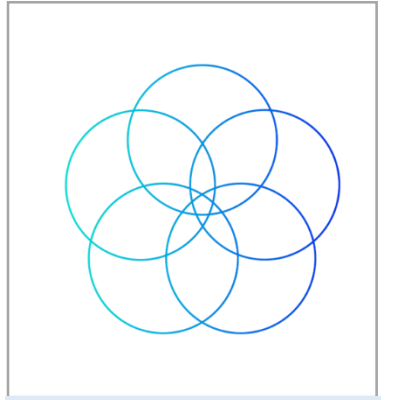
Mfr/Importer/REP



Training

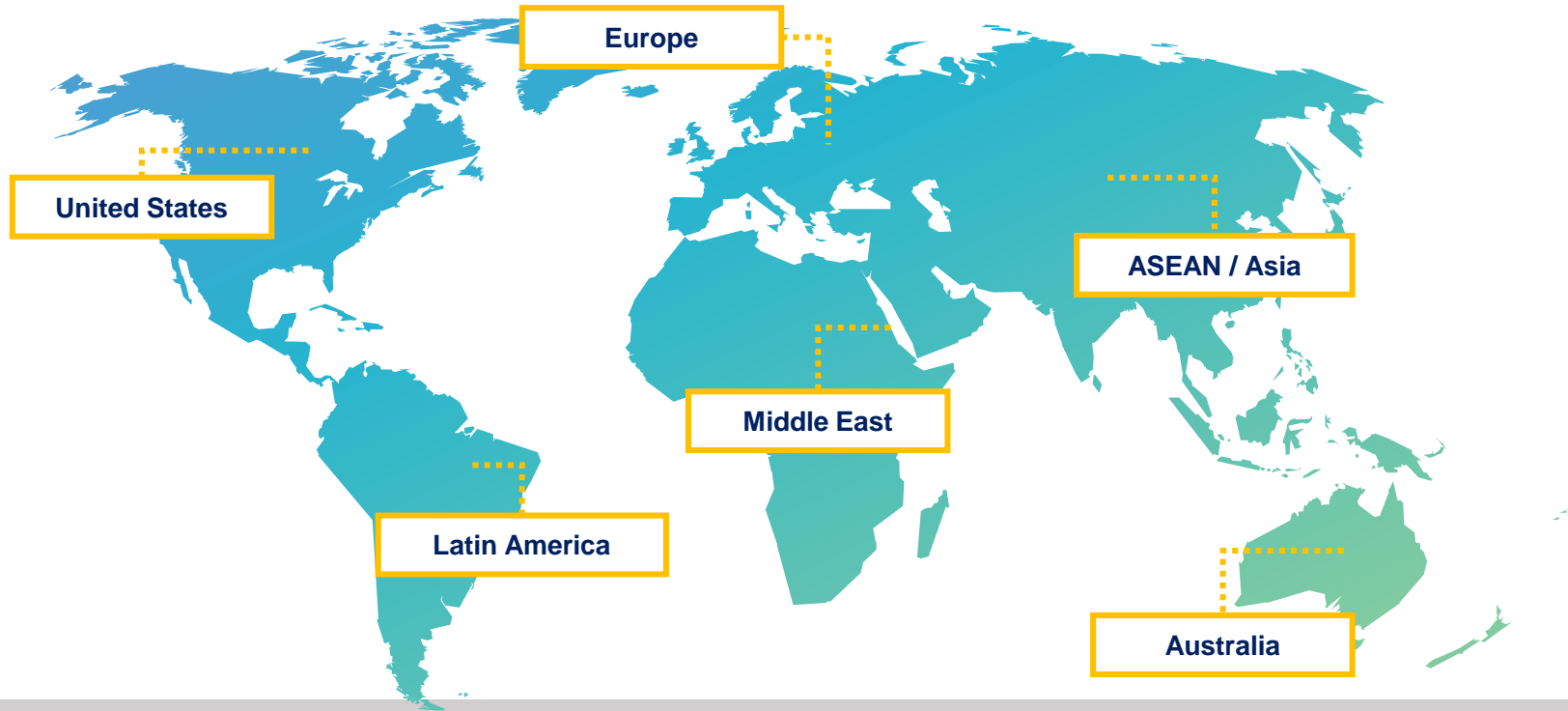


Business Matching



B2B Platform





*Contact us .... HQ -Singapore, ASEAN/ASIA, AU, EUROPE, US, LAMER, MIDDLE EAST, GLOBAL*



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