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Directorate General of Health Services
Central Drugs Standard Control Organisation
(Medical Devices Division)

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Circular

Subject: Guidance Document on Medical Device Software under MDR-2017 - Reg.

Consequent to the implementation of the Gazette Notification vide S.O. 648(E) dated 11.02.2020 published by the Ministry of Health & Family Welfare, Govt. of India, all medical devices are regulated under the Drugs & Cosmetics Act, 1940 and the Medical Devices Rules, 2017 (MDR-2017) thereunder. The software intended to be used for medical purposes (Medical Device Software) are also regulated under the said provisions ensuring their quality, safety and performance.

In order to align the requirements for regulatory submissions with globally harmonized practices, a Draft Guidance Document on Medical Device Software was published vide File No. MED-16028/2/2024-eoffice dated 21.10.2025 for public comments. The comments received from the stakeholders have been reviewed in consultation with experts, and the final Guidance Document on Medical Device Software vide Doc No. CDSCO/MD/GD/MDSW/01/2026 has been prepared and attached herewith for ready reference.

This Guidance provides clarity on the regulatory expectations for Medical Device Software under the MDR-2017. It outlines the regulatory framework, classification principles, applicable safety and performance requirements, documentation expectations, quality management considerations, and post-market obligations to facilitate compliance with the applicable regulatory requirements. It is intended to promote a consistent understanding and implementation of regulatory requirements while supporting innovation, patient safety, product quality, and timely market access for Medical Device Software.

All stakeholders are advised to refer this document while submitting applications for obtaining regulatory approvals in accordance with the applicable provisions of the MDR-2017.

(Dr. Rajeev Singh Raghuvanshi)
Drugs Controller General (I)

To,

1. All State/UT Licencing Authorities
2. All stakeholders through the CDSCO website

Central Drugs Standard Control Organization

(Medical Devices & IVD Division)

Guidance Document on Medical Device Software

Doc No.: CDSCO/MD/GD/MDSW/01/2026

Notice:

This guidance document is aimed only for creating public awareness about Regulations of Medical Device Software and is not meant to be used for legal or professional purposes. The readers are advised to refer to the statutory provisions of Drugs and Cosmetics Act and the Medical Devices Rules, 2017 and respective Guidelines/Clarifications issued by CDSCO from time to time for all their professional needs.

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ABBREVIATIONS

ABDM	Ayushman Bharat Digital Mission
ABHA	Ayushman Bharat Health Account
AE	Adverse event
ACP	Algorithm Change Protocol
AI	Artificial Intelligence
API	Application Programming Interface
BIS	Bureau of Indian Standards
CAD	Computer-Aided Detection
CDSCO	Central Drugs Standard Control Organization
CIS	Clinical Information System
COTS	Commercial Off-the-Shelf
CLA	Central Licensing Authority
FSC	Free Sale Certificate
FSCA	Field Safety Corrective Action
HFR	Health Facility Registry
HIS	Hospital Information System
HPR	Healthcare Professionals Registry
IEC	International Electrotechnical Committee
IFU	Instructions for Use
IMS	Image Management System
IoT	Internet-of-Things

IPC	Indian Pharmacopeia Mission
ISO	International Organization for Standardization
IVD	*In vitro* Diagnostic(s)
LA	Licensing Authority
LIS	Laboratory Information System
MeitY	Ministry of Electronics and Information Technology
ML	Machine Learning
MSC	Market Standing Certificate
MDR-2017	Medical Devices Rules, 2017
MDSW	Medical Device Software
NCC	Non Conviction Certificate
NSWS	National Single Window System
OTS	Off-the-shelf
PAC	Post-Approval Change(s)
PMS	Post Marketing Surveillance
PSUR	Periodic Safety Update Report
QMS	Quality Management System
SaaS	Software as a Service
SBOM	Software Bill of Materials
SDS	Software Design Specifications
SLA	State Licensing Authority
SRS	Software Requirements Specifications
SUSAR	Suspected Unexpected Serious Adverse Events

1.0 PURPOSE:

Software role in healthcare is becoming increasingly critical, as a diverse array of products serves various medical and administrative functions across clinical and private settings. Any software, whether alone or in combination, intended by the manufacturer for medical purposes and attracts the definition of medical device under the Drugs and Cosmetics Act, 1940 and Medical Devices Rules, 2017 (MDR-2017) is regulated as 'medical device.'

The purpose of this document is to provide guidance to stakeholders (manufacturers, importers and innovators/researchers, etc.) for the submission of application to the Licensing Authority (LA) for obtaining regulatory approvals for Medical Device Software (including *In-vitro* Diagnostic (IVD) Medical Device Software) under the MDR-2017.

2.0 SCOPE:

This Guidance Document applies to software products which attract the definition of a "Medical Device" as mentioned in the MDR-2017 (see **Section 4.9** of this Document) under the Drugs & Cosmetics Act, 1940, and shall be hereinafter referred to as Medical Device Software (MDSW).

Further, this document does not apply to software that are merely intended for general wellness, promoting a healthy lifestyle, or measure body parameters only for regular tracking and fitness purposes (**Section 5.2**), provided it is not intended for any medical purposes as defined in this Document (**Section 4.10**).

This Guidance Document reflects current practices under the MDR-2017 and should not be misconstrued as a new regulatory control on MDSW (including *In vitro* Diagnostic (IVD) MDSW).

The words and expressions used in this Guidance Document shall have the meaning assigned to them in the Drugs & Cosmetics Act, 1940 and the MDR-2017 made thereunder, unless otherwise specified in **Section 4.0** of this Document.

NOTE:

For the purposes of this document, the term "Medical Device Software

(MDSW)" shall, hereinafter, also include IVD medical device software, unless otherwise specified.

3.0 MODE OF SUBMISSION

All applications regarding manufacturing or import, clinical investigations, and registration for sale and distribution of medical devices are to be submitted through the designated online portal(s) established for the purposes as follows:

- **Test Licenses (NSWS Portal):** Applications for the grant of a Test License must be submitted through the **National Single Window System (NSWS)** portal at www.nsws.gov.in.
- **Commercial Permissions and Licenses (MD online Portal):** All other applications for regulatory permissions, manufacturing/import licenses, or registration for sale and distribution (excluding Test Licenses) for MDSW must be submitted through the **Online System for Medical Devices** portal at www.cdscomdonline.gov.in.

4.0 DEFINITIONS

4.1 "Active medical device" means a medical device, the operation of which depends on a source of electrical energy or any other source of energy other than the energy generated by human or animal body or gravity.

4.2 "Change management" means the process for recording, coordination, approval and monitoring of all changes in the device.

4.3 "Clinical evidence" means, in relation to —

(i) an *in vitro* diagnostic medical device, is all the information derived from specimen collected from human that supports the scientific validity and performance for its intended use;

(ii) a medical device, the clinical data and the clinical evaluation report that supports the scientific validity and performance for its intended use.

4.4 "Clinical investigation" means the systematic study of an investigational medical device in or on human participants to assess its safety, performance or effectiveness.

4.5 "Clinical performance evaluation" means the systematic performance study of a new *in vitro* diagnostic medical device on a specimen collected from human participants to assess its performance.

4.6 "Cybersecurity" means a state where information and systems are protected from unauthorized activities, such as access, use, disclosure, disruption, modification, or destruction to a degree that the related risks to confidentiality, integrity, and availability are maintained at an acceptable level throughout the life cycle.

4.7 "Intended use" means the use for which the medical device is intended according to the data supplied by the manufacturer on the labelling or in the document containing instructions for use [or electronic instructions for use] of such device or in promotional material relating to such device, which is as per approval obtained from the Central Licensing Authority.

4.8 "Investigational medical device" in relation to a medical device, other than *in vitro* diagnostic medical device, means a medical device:
i) which does not have its predicate device, or
ii) which is licensed under the MDR-2017, however it claims for new intended use or new population or material or major design change and is being assessed for safety or performance or effectiveness in a clinical investigation.

4.9 "Medical Device" - All devices including an instrument, apparatus, appliance, implant, material or other article, whether used alone or in combination, including a software or an accessory, intended by its manufacturer to be used specially for human beings or animals which does not achieve the primary intended action in or on human body or animals by any pharmacological or immunological or metabolic means, but which may assist in its intended function by such means for one or more of the specific purposes of —

(i) diagnosis, prevention, monitoring, treatment or alleviation of any disease or disorder;

(ii) diagnosis, monitoring, treatment, alleviation or assistance for, any injury or disability;

(iii) investigation, replacement or modification or support of the anatomy or of a physiological process;

(iv) supporting or sustaining life;

(v) disinfection of medical devices; and

(vi) control of conception.

4.10 "Medical purposes" means the purposes as mentioned in **Section 4.9**.

NOTE:

Purposes such as mitigation, prediction, alleviation, etc., of any disease or pathological condition or state of humans and/or animals, may also be considered as a medical purpose.

4.11 "Medical Device Software" means is software (as covered in **Section 4.9**) that is intended for a medical purpose (Refer **Section 4.10**), as under:

i) software that are, either alone or in combination, intended to be used to perform one or more medical purposes without being part of a hardware medical device, wherein, "without being part of" means software does not necessarily require a hardware medical device to achieve its intended medical purpose. Such software may also be referred to as standalone medical device software.

ii) software that are considered as a "part of" the medical device hardware and/or that drive or influence the use of that medical device," wherein the term "drive or influence the use of a medical device," indicates that it can: (a) operate, modify the state of, or control the device either through an interface or via the operator of the device, or (b) supply output related to the (hardware) functioning of that device.

4.12 "New *in vitro* diagnostic medical device" means any medical device used for *in vitro* diagnosis that has not been approved for manufacture for sale or for import by the Central Licensing Authority and is being tested to establish its performance for relevant analyte(s) or other parameter related thereto including details of technology and procedure required.

4.13 "Predicate device" means a device, first time and first of its kind, approved by the Central Licensing Authority for marketing in the country and has the similar intended use, material of construction, and design characteristics as the device which is proposed for licence in India.

4.14 "Product Lifecycle" means a series of all phases in the life of a product or system, from the initial conception to final decommissioning and disposal.

4.15 "Real-world data (RWD)" refers to data relating to patient health status and/or the delivery of health care routinely collected from a variety of sources. Examples of RWD include data derived from electronic health records, medical claims data, data from product or disease registries, and data gathered from other sources (such as digital health technologies) that can inform on health status.

NOTE:

Data collected through clinical investigations or controlled trials is not considered as RWD.

4.16 "Real-world evidence (RWE)" refers to evidence about the use, safety, effectiveness and performance of a medical device that is based on or derived from analysis of RWD.

4.17 "Software Bill of Materials (SBOM)" means a list of one or more identified components, their relationships, and other associated information.

NOTE:

The SBOM for a single component with no dependencies is just the list of that one component. "Software" can be interpreted as "software system,"

thus hardware (true hardware, not firmware) and very low-level software (like Central Processing Unit (CPU) microcode) can be included.

5.0 MEDICAL DEVICE SOFTWARE (MDSW): KEY FEATURES and EXAMPLES

- Not all software used within healthcare settings qualify as a MDSW.
- MDSW is increasingly being deployed on general-purpose (non-medical purpose) hardware and delivered, in diverse care settings, on a multitude of technology platforms (e.g., personal computers, smart phones, and in the cloud) that are easily accessible. It is also being increasingly interconnected to other systems and datasets (e.g., via networks and over the Internet).
- Software intended for any medical purpose in animals shall also be considered as MDSW.
- In effect, the following types of software are considered as MDSW:

1) Software that are intended for any of the medical purposes as defined in **Section 4.10.**

2) Software that are considered as a "part of" (or, embedded in) the medical device hardware and/or that drive or influence the use of that medical device, wherein drive or influence the use of can be referred as:
   (i) operate, modify the state of, or control a hardware medical device either through an interface or via the operator of the device, or/and
   (ii) supply output related to the (hardware) functioning of that device.

NOTE:

i) The embedded software/firmware that are required by a hardware medical device to perform the hardware's medical device intended use shall be referred to as MDSW. If it is sold separately from the hardware medical device, a separate licence is required for its import/manufacturing under the MDR-2017.

ii) A separate licence may not be required for software that are a part of/embedded and that drive or influence the use of a hardware medical

device. They may be registered/licenced along with the parent medical device as component/accessories.

iii) Software, including mobile apps/cloud software, that can control or adjust a medical device through a connection, either physical or utilising wireless technology such as Bluetooth or Wi--Fi features, shall be considered as medical devices.

3) Any software that are, either alone or in combination with any other hardware or software medical device, intended to be used to perform one or more medical purposes as defined in **Section 4.10** without being part of a hardware medical device, wherein,

"without being part of" means software does not necessarily require a hardware medical device to achieve its intended medical purpose.

Such software may also be referred to as standalone MDSW.

4) Software that may be interfaced with other medical devices (including hardware medical devices and/or other MDSW) as well as general purpose software for performing any medical purposes.

NOTE:

i) MDSW may be capable of running on general purpose (non-medical purpose) computing platforms and different operating systems, wherein

"Computing platforms" include hardware and software resources (e.g. operating system, processing hardware, storage, software libraries, displays, input devices, programming languages, etc.), and,
"Operating systems" refer to any server, workstation, mobile platform, or any other general-purpose hardware platform that may be required by the software to run on.

*ii) Mobile apps, AI/ML-based software and Cloud/Network-based software that meet the definition stated in **Section 4.9** above are considered as*

MDSW.

*iii) Commercial off-the-Shelf (COTS) software that meets the definition as stated in **Section 4.9** shall be considered as MDSW. However, if such software has no medical purpose, then they may not fall under the purview of the MDR-2017. If such COTS software is part of the larger MDSW framework, the manufacturer should submit a justification/clarification on the role and impact of the COTS software on the safety and efficacy of the MDSW function.*

iv) If an MDSW is part of a system which has other functions that may not be medical purposes (non-device functions), then such functions may not be regulated or subject to regulatory review. However, the manufacturer should submit clarification on the impact of non-device functions on the safety and effectiveness of the MDSW function for assessment and review.

- All MDSW can be considered to be active devices because they rely on a source of energy other than energy generated by the human/animal body or gravity.

5.1 Software that are covered under MDR-2017 (practical illustrations)

Example (1): The embedded software/firmware in a cardiac pacemaker is regulated as a component of that pacemaker, because it is supplied as part of the device and is necessary for the device to function.

Example (2): An embedded software that controls or drives an insulin pump to deliver a calculated dose of insulin.

Example (3): Software that is built (pre-installed) into an IVD analyser/instrument (e.g., operating software in a clinical analyser, point of care analyser or personal use IVD such as a glucose meter). In these cases, the software is a part of a device and is not considered to be a separate or distinct device.

Example (4): Software that is supplied separately (which is installed on a

computer interface) to an IVD analyzer/instrument but intended to operate or influence the IVD. In these cases, the software is a distinct IVD that is separate from the IVD analyser/instrument.

Example (5): A software application that connects via Bluetooth to a blood pressure cuff to obtain readings in order to track blood pressure in the individual wearing the cuff for medical purposes.

Example (6): A software intended for image analysis of body fluid preparations or digital slides to perform cell count and morphology reviews.

Example (7): A Computer Aided Detection (CAD)-based software intended to provide information that may suggest or exclude medical conditions by analyzing X-ray images or ECGs.

Example (8): An AI/ML-based tool intended for triage, and/or screening of cancer lesions.

Example (9): A digital platform, using Internet-of-Things (IoT), and intended for use in conjunction with connected devices (like smart glucometers) to track chronic conditions such as diabetes, cardiovascular conditions, etc., to offer real-time AI-driven data analytics and interventions to mitigate acute health episodes.

Example (10): A behavior-change and digital therapeutics platform intended to mitigate the progression of chronic diseases (e.g., Type 2 diabetes, hypertension, etc.) through remote coaching and digital tracking.

Example (11): A software designed for use with veterinary medical purposes, e.g., veterinary radiological image analysis, veterinary medical device operation software, etc.

5.2 Software that are NOT covered under the MDR-2017

- Software that do not attract the definition of a Medical Device (as stated in **Section 4.9** of this Document).

  Some practical illustrations of software that are not MDSW:

- ☒ Software (such as Enterprise resource planning (ERP) software) used in the design, testing, component acceptance, manufacturing, labelling, packaging, distribution, complaint handling, or to automate any other aspect of a medical device quality system.
- ☒ Software that rely on data from a medical device, but do not have a medical purpose, e.g., software that encrypt data for transmission from a medical device.
- ☒ Software that monitor performance or proper functioning of a medical device for the purpose of servicing the device.
- ☒ Software that alter the representation of data for embellishment/cosmetic or compatibility purposes.
- ☒ Software that are solely intended for medical teaching/training/educational purposes.
- ☒ Software that perform actions such as transfer, storage, archive data, convert, format, communication, simple search, compression.
- ☒ Hospital/Clinical Information systems (HIS/CIS) that support the process of patient data management (intended only for patient admission, for scheduling patient appointments/visits, for insurance and billing/invoicing purposes, enabling clinical communication such as voice calling, video calling, to store and transfer patient information (patient identification, vital intensive care parameters and other documented clinical observations) generated in association with the patient's treatment).
- ☒ Communication systems intended for general purposes, and is used for transferring both medical and non-medical information (e.g. email systems, mobile telecommunication systems, video communication systems, paging, etc.) to transfer electronic information. Different types of messages are sent such as prescription, referrals, images, patient records, etc.
- ☒ Laboratory Information Systems (LIS) are not qualified as medical devices, wherein the main intended use is the management and validation of

incoming information obtained from IVD analyzers connected to the system, such as calibration, quality control, product expiry and feedback (e.g. retesting of samples needed) through interconnections with various analytical instruments (technical and clinical validation). The post-analytical process allows communication of laboratory results, statistics and optional reporting to external databases.

☒ Image Management System (IMS): a software-based system intended to be networked with digital pathology systems, in order to access, display, annotate, manage, store, archive and share collections of digitised patient images.

NOTE:

If any HIS/CIS or LIS/IMS has any additional functions that allow its use for any medical purposes (e.g., image analysis/modification as an aid in diagnosis, quantification of physiological parameters for clinical decision-making, real-time patient monitoring, etc.), then it may be considered as a medical device.

☒ **General Wellness Software**

General Wellness Software refers to any software that is: i) intended to maintain or encourage a general state of health or a healthy activity, and/or ii) relates the role of healthy lifestyle with helping to reduce the risk or impact of certain chronic diseases or conditions and where it is well understood and accepted that healthy lifestyle choices may play an important role in health outcomes for the disease or condition. Such software do not fall under the purview of MDR-2017.

NOTE:

i) The intended use statement of such general wellness software may make claims about sustaining or offering general improvement to functions associated with a general state of health, however it should not be making any reference to diseases or disorders or pathological conditions.

ii) Software intended to measure, estimate, or report physiologic values for medical or clinical purposes, including screening, diagnosis, monitoring, alerting, or management of a disease or a disorder or a condition, shall NOT be considered as General Wellness Software.

6.0 INTENDED USE STATEMENT OF MEDICAL DEVICE SOFTWARE

- The intended use statement (**Section 4.7**) should be clinically meaningful.
- The clinical role of the MDSW should be clearly defined in the intended use statement (*e.g., whether it is a decision support software, driving a medical device, providing definitive diagnosis/treatment recommendation, etc.*)
- Key elements that may be considered while framing the Intended Use/Intended Purpose statement for the MDSW:
  a) Medical Purposes (*e.g., diagnosis, prevention, screening/triage, monitoring, mitigation prediction, treatment, etc.*)
  b) Intended Disease or Condition (*e.g., critical, serious, non-serious, etc.*)

  NOTE:

  The specific disease or condition intended to be targeted by the MDSW, if any, should ideally be mentioned in the intended use statement. The state of condition/disease (e.g., chronic or acute) should also be considered.

  c) Intended Patient Populations *(e.g., general population, specific subgroup like pediatric, geriatric, specific age group, ethnicity, etc.)*

  d) Intended Users *(e.g., non-clinical user/user without a medical qualification, health care professionals that include nurses, radiologists, dentists, primary care physicians, specialist care physicians, etc.)*

  e) Intended Use Environment *(e.g., home use, primary care/virtual primary care, hospital, specialty clinics, etc.)*

  f) Contraindications *(the specific medical conditions/comorbidities wherein the MDSW should not be used or may provide erroneous results)*

g) MDSW device software function, including:

i. MDSW inputs (*e.g., from human user, medical device, non-medical device, or consumer product*)

ii. MDSW outputs (*e.g., this may include clinical interpretation or intervention (diagnosis, mitigation, treatment, prediction, probability, prognosis, prescription, recommended treatment/therapy, radiation treatment plans, etc.), workflow recommendations (recommended surgical tools, recommended additional tests, recommended imaging modality/parameters, etc.*), *or/and data for use in medical purpose (anatomy measurements, volume, or segmentation, image reconstruction/de-noising, processed signals such as ECG, etc.*))

iii. Explanation of how the MDSW inputs and outputs fit into the clinical or healthcare workflow (*e.g., output targeted to humans or animals or for other medical devices, whether it informs clinical management, or drives it, etc.*)

h) Software Platform *(e.g. general-purpose consumer devices (smartphones, watches, etc.,), cloud-based network, interfaced with hardware medical device, etc.)*

NOTE:

i) It is pertinent to note that not all elements will be applicable to all MDSW.

ii) For certain MDSW, information such as contraindications, etc. may be included elsewhere and not in the intended use statement.

i) In addition to the above, the following key elements should be considered in the intended use statement of In-vitro diagnostic (IVD) MDSW:

i. The analyte(s)/parameter(s) being analyzed (*e.g., concentration of anti-HIV antibodies, etc.*)

ii. The type of sample/specimen to be use for analysis (*e.g., blood plasma, urine, etc.*)

iii. Intended diagnostic level (*e.g., screening, diagnosis aid, staging of disease, prognosis, monitoring, etc.*)

iv. Limitations to the intended use, i.e., the specific conditions/comorbidities/medications/analyte variant for which the software may yield erroneous result, if any, (*e.g., changes in image quality may limit the efficiency by which a software analyzes stained slides; specific subtypes/variants of pathogens for which sensitivity and consequently the software performance may be affected*).

v. Whether the IVD software is intended to yield quantitative, semi-quantitative or qualitative results, or whether it is intended for assessment of performance of an analytical procedure or a part, thereof, without any assigned quantitative or qualitative value.

vi. Whether the IVD software is intended for self-testing or near-patient testing.

7.0 RISK-BASED CLASSIFICATION

- As per Rule 4 in Chapter II of the MDR-2017, all medical devices (including MDSW) are classified as shown in **Table 1**.

Table 1. Risk classification of medical devices as per the MDR-2017.

Degree of risk	Classification
Low risk	Class A
Low moderate risk	Class B
Moderate high risk	Class C
High risk	Class D

- The risk class of the MDSW is fundamentally based on the intended use of the software and the applicable rules in First Schedule of MDR-2017, wherein the

intended use of the MDSW is normally reflected in various sources such as the labelling details, including instructions for use manuals, websites, promotional material, and other information provided by the manufacturer.

7.1 Factors to be considered for risk classification of MDSW

- All MDSW shall be classified using the classification parameters and provisions as specified in the First Schedule of the MDR-2017.
- The intended use of the MDSW as provided by the manufacturer shall be fundamental to the risk classification of that MDSW.
- In effect, software that are intended for driving or influencing the use of a hardware medical device shall be classified in the same risk class as the hardware medical device *(e.g., medical device operation software, medical device image output generation and processing software, etc.).*
- Additionally, subject to the parameters laid out in the First Schedule of MDR-2017 and as specified by the intended use statement, if the MDSW is standalone, then **Table 2** may be referred for risk classification.

Table 2. Risk classification of MDSW which are standalone.

State of healthcare situation or condition	Significance of information provided by standalone MDSW to health care decision		
	Treatment or diagnosis	Drive clinical management	Inform clinical management
Critical	D	C	B
Serious	C	B	A
Non-serious	B	A	A

Note: Standalone MDSW intended to be used by non-clinical users in a "serious situation or condition" as described here, without the support from specialized professionals, may be considered as a MDSW used in a "critical situation or condition". It may, hence, influence the risk classification of the MDSW.

- The following factors may be considered in determining the risk class of such standalone MDSW:

  a) **Significance of information provided by the MDSW for health care decision making**, viz. Treatment or diagnosis, Drive clinical management or/and Inform clinical management.

i. Treatment or diagnosis: This infers that the information provided by the MDSW will be used to take an immediate or near-term action to:

- ☑ Treat/prevent or mitigate by connecting to other medical devices, medicinal products, general purpose actuators or other means of providing therapy to a human/animal body, or/and
- ☑ Diagnose/screen/detect a disease or condition (i.e., using sensors, data, or other information from other hardware or software devices, pertaining to a disease or condition).

ii. Drive clinical management: This infers that the information provided by the MDSW shall be used to aid in treatment, aid in diagnoses, to triage or identify early signs of a disease or condition or/and will be used to guide next diagnostics or next treatment interventions.

- ☑ To aid in treatment by providing enhanced support to safe and effective use of medicinal products or a medical device.
- ☑ To aid in diagnosis by analyzing relevant information to help predict risk of a disease or condition or as an aid to making a definitive diagnosis.
- ☑ To triage or identify early signs of a disease or conditions.

iii. Inform clinical management: This infers that the information provided by the MDSW will not trigger an immediate or near term action. However, the MDSW shall:

- ☑ Inform of options for treating, diagnosing, preventing, or mitigating a disease or condition, and/or
- ☑ Provide clinical information by aggregating relevant information (e.g., disease, condition, drugs, medical devices, population, etc.)

b) **The health care situation or condition for which the MDSW is intended to be used**, viz. critical, serious or non-serious situation/condition.

i. Critical situation/condition: These refer to situations or conditions where accurate and/or timely diagnosis or treatment action is vital to avoid

death, long-term disability or other serious deterioration of health of an individual patient or to mitigating impact to public health.

An MDSW is considered to be used for a critical situation/condition when:

- ☑ The type of disease/condition is life threatening (including incurable states), requires major therapeutic interventions, and/or time critical (i.e. progression of the disease/condition is such that it may affect the user's ability to reflect on the output information).
- ☑ Intended target population is fragile with respect to the disease or condition (e.g., vulnerable population, etc.)
- ☑ Intended for use by specialized trained users.

ii. Serious situation/condition: This refers to those situations/conditions where accurate diagnosis or treatment is of vital importance to avoid unnecessary interventions (e.g., biopsy) or timely interventions are important to mitigate long term irreversible consequences on an individual patient's health condition or public health. An MDSW is considered to be used in a serious situation or condition when:

- ☑ The type of disease/condition is moderate in progression (often curable), does not require major therapeutic interventions, and/or the intervention is not expected to be time critical, in order to avoid death, long term disability or other serious deterioration of health, whereby providing the user an ability to detect erroneous recommendations.
- ☑ Intended target population is NOT fragile with respect to the disease or condition.
- ☑ Intended for use by either specialized trained users or non-clinical, untrained users.

NOTE:

MDSW intended to be used by non-clinical users in a "serious situation or condition" as described here, without the support from specialized

professionals, may be considered as MDSW used in a "critical situation or condition".

iii. Non-Serious situation/condition: This refers to a situation/condition where an accurate diagnosis and treatment is important but not critical for interventions to mitigate long term irreversible consequences on an individual patient's health condition or public health. An MDSW is considered to be used in a non-serious situation or condition when:

- ☑ The type of disease/condition is slow with predictable progression disease states (e.g., minor chronic illness or states, etc.), may not be curable but can be managed effectively, requires only minor interventions, and interventions are mostly non-invasive in nature, providing the user the ability to detect erroneous recommendations.
- ☑ Intended target population is individuals who may not always be patients.
- ☑ Intended for use by either specialized trained users or non-clinical, untrained users.

- The risk class shall be confirmed by CDSCO (CLA) upon review of the medical device details such as intended use, design characteristics, etc.
- In exercise of the powers conferred under sub-rule (3) of Rule 4 of MDR-2017, CDSCO (CLA) has classified a list of MDSW, which is published on the Online System for Medical Devices. This list is dynamic and is subject to revisions from time to time under the provisions of MDR-2017, and may be accessed at: https://cdscomdonline.gov.in/NewMedDev/ListOfApprovedRiskDevice https://www.cdscomdonline.gov.in/NewMedDev/ListOfApprovedRiskNSSMD evice)
- In case a particular MDSW is not listed in the above said risk-based classification list, then the applicant may submit an application in the CDSCO MD Online portal (https://cdscomdonline.gov.in) for obtaining the risk class of the device.

NOTE:

If several rules apply to the same device, based on the performance specified for the device by the manufacturer, the strictest rules resulting in the higher classification shall apply (First Schedule, MDR-2017).

8.0 APPLICABLE STANDARDS

- The MDSW shall conform to the standards laid down by the Bureau of Indian Standards (BIS) or as may be notified by the Ministry of Health and Family Welfare in the Central Government, from time to time.
- If no such standard(s) are available, the device(s) shall conform to the International Organisation for Standardisation (ISO) or the International Electrotechnical Commission (IEC), or by any other pharmacopeia standards.
- In case if the standards are not specified under above points, the device shall conform to the validated manufacturer's standards.
- The following standards may be applicable to all MDSW:

Table 3. List of some standards applicable on MDSW.

S. No.	Standard Number	Standard Title
1.	IS/ISO 13485	Medical Devices—Quality Management Systems— Requirements for Regulatory Purposes
2.	IS/ISO 14971	Medical devices — Application of risk management to medical devices.
3.	IEC/TR 80002-1	Medical device software – Part 1: Guidance on the application of ISO 14971 to medical device software.
4.	IS 16124	Systems and Software Engineering - Software Life Cycle Processes.
5.	IS/ISO/IEC 62304	Medical device software – Software life cycle processes.
6.	IS/IEC 82304-1	Health software: Part 1 general requirements for product safety.
7.	IEC 81001-5-1	Health software and health IT systems safety, effectiveness and security Part 5-1: Security — Activities in the product life cycle.

8.	IEC 62366-1	Medical devices Part 1: Application of usability engineering to medical devices.
9.	IS 16458/ISO/IEC 16085	Systems and Software Engineering — Life Cycle Processes — Risk Management
10.	IS/ISO/IEC 23894	Information Technology — Artificial Intelligence — Guidance on Risk Management
11.	IS/ISO/IEC 42001	Information technology — Artificial intelligence — Management system.
12.	IS/ISO/IEEE 11073	Health Informatics - Point-of-Care Medical Device Communication.
13.	ISO 24291	Health informatics — Applications of machine learning technologies in imaging and other medical applications.
14.	IS/ISO/IEC 27001	Information security, cybersecurity and privacy protection — Privacy information management systems — Requirements and guidance.
15.	IS/ISO 15223-1	Medical Devices — Symbols to be Used with Medical Device Labels, Labelling and Information to be Supplied Part 1 General Requirements
16.	IS/ISO 15223-2	Medical devices - Symbols to be used with medical device labels, labelling, and information to be supplied: Part 2 symbol development, selection and validation
17.	IS/ISO/TR 24971	Medical Devices Guidance on the Application of ISO 14971
18.	Other applicable standards as published by BIS or recognized international organizations under the MDR-2017 from time-to-time (such as IS/ISO/TS 82304-2, ISO/TR 62366-2, ISO 20417, IS 18376/ISO/TR 20416, etc.)	

NOTE:

The above list mentions some of the standards that may be applicable for MDSW. The standard(s) that may be applicable to a particular MDSW is not limited to the list provided above.

For detailed information on applicable standards, the manufacturer/applicant may refer the BIS website: https://standards.bis.gov.in/.

9.0 REQUIREMENTS FOR QUALITY MANAGEMENT SYSTEM (QMS) FOR MEDICAL DEVICE SOFTWARE

- The manufacturer of an MDSW need to establish Quality Management System (QMS) in respect of the organizational structure and the entire software lifecycle (design, development, product planning, configurations, deployment, maintenance, etc.).
- An MDSW QMS ensures that:

  a) software is developed consistently,
  b) risks are controlled,
  c) changes are traceable,
  d) validation is documented,
  e) defects are managed,
  f) cybersecurity is maintained,
  g) patient safety is protected.

- The domestic manufacturers are required to establish and maintain procedure and records which demonstrate conformance to the requirements of QMS and submit an undertaking stating compliance with the requirements of QMS as specified in the Fifth Schedule of MDR-2017 as part of their application for grant of manufacturing license.
- In case of import, the overseas manufacturer shall ensure that their manufacturing facility complies with the QMS requirements and need to submit a notarized copy of QMS certificate issued by the National Regulatory Authority or the competent authority in their application for grant of Import license.

- In addition to the above, the QMS expectation is primarily based on:

  - IS/ IEC 62304 (software lifecycle)
  - IS/ISO 14971 (risk management)
  - IS/IEC 82304-1 (health software safety)

- Under the MDR-2017, the manufacturers are required to implement a documented and controlled QMS appropriate to the MDSW risk class. The documentation shall include details on software architecture, software requirements specification (SRS), software design specification (SDS), source code management process, version control process, release management process, and software lifecycle management protocols, etc.
- The MDSW may exhibit changes in performance over time due to variations in clinical practice, patient populations, deployment environments, data characteristics, software updates, or model modifications.
- Accordingly, manufacturers are required to establish and maintain mechanisms for continuous performance assurance throughout the lifecycle of the device to ensure ongoing safety, effectiveness, reliability, and clinical validity in real-world use.
- Manufacturers should maintain and periodically update a Bill of materials (BOM) including Software Bill of Materials (SBOM) for MDSW.
- The SBOM should ideally cover third-party, open-source, and commercial software components, and manufacturers should implement processes for monitoring, assessing, and mitigating known vulnerabilities associated with such components throughout the software lifecycle as part of risk management.
- Manufacturers are required to implement documented procedures for monitoring device performance after deployment, including the identification and management of clinically significant performance degradation, algorithm drift, cybersecurity vulnerabilities, and unintended outcomes.
- Any modification that may affect the safety, intended purpose, clinical performance, or risk profile of the device should be subject to appropriate validation, documentation, and regulatory approval, under the MDR-2017.
- Manufacturers are also required to evaluate device performance across relevant populations, healthcare settings, and operational environments to support safe and equitable use in the Indian healthcare ecosystem.
- The QMS plan should include compliance of the MDSW with applicable cybersecurity standards.
- The security of connectivity between a hardware medical device and the MDSW

framework, and among the individual components (including third-party COTS software, open-access codes, off-the-shelf (OTS) software) of the MDSW framework should be ensured by the manufacturer based on applicable standards.

- The manufacturers are required to implement adequate safeguards to ensure:
  - Data encryption (in transit and at rest)
  - Access control mechanisms
  - Audit trails and traceability
  - Protection of patient data integrity and confidentiality

- **Digital Health Ecosystem Requirements:**

The MDSW should be designed and deployed in a manner that supports India's evolving digital health ecosystem. Particularly, developers, implementers, healthcare providers, and procuring agencies should ensure that MDSW (including AI-based systems):

1. **Enable standards-based interoperability** to facilitate seamless exchange and integration of health information across digital health platforms, healthcare facilities, and medical devices.
2. **Support consent-driven access to health data**, ensuring that the collection, sharing, and use of data are authorized, transparent, compliant with the Digital Personal Data Protection (DPDP) Act, 2023, and aligned with applicable regulatory, legal, and ethical requirements.
3. **Facilitate secure health information exchange** through appropriate technical, organizational, and cybersecurity safeguards to maintain data integrity and system trustworthiness.
4. **Protect privacy and confidentiality** throughout the AI lifecycle, including data collection, model development, deployment, monitoring, and post-market surveillance.
5. **Maintain auditable digital traceability** of patients, healthcare professionals, healthcare facilities, AI models, and clinical transactions,

where applicable, to support accountability, safety monitoring, and regulatory oversight.

This information is summarized in **Table 4.**

Table 4. Digital Health Ecosystem Requirements for Compliance.

Digital Health Ecosystem Requirement	Guidance in the context of MDSW (including AI-based systems)
Interoperability	Adopt standards-based data exchange and integration mechanisms.
Consent-based Data Governance	Ensure transparent, consent-driven access and use of health data.
Secure Information Exchange	Implement robust cybersecurity and secure data-sharing controls.
Privacy and Confidentiality	Protect personal health information across the software/AI lifecycle.
Digital Traceability and Accountability	Maintain auditable records and traceability of users, facilities, and AI-enabled clinical transactions.

For more details: https://www.icmr.gov.in/icmrobject/custom_data/pdf/Ethical-guidelines/Ethical_Guidelines_AI_Healthcare_2023.pdf, https://abdm.gov.in/abha-PRIVACY-POLICY-english

10.0 REGULATORY PATHWAY FOR MARKETING OF MEDICAL DEVICE SOFTWARE

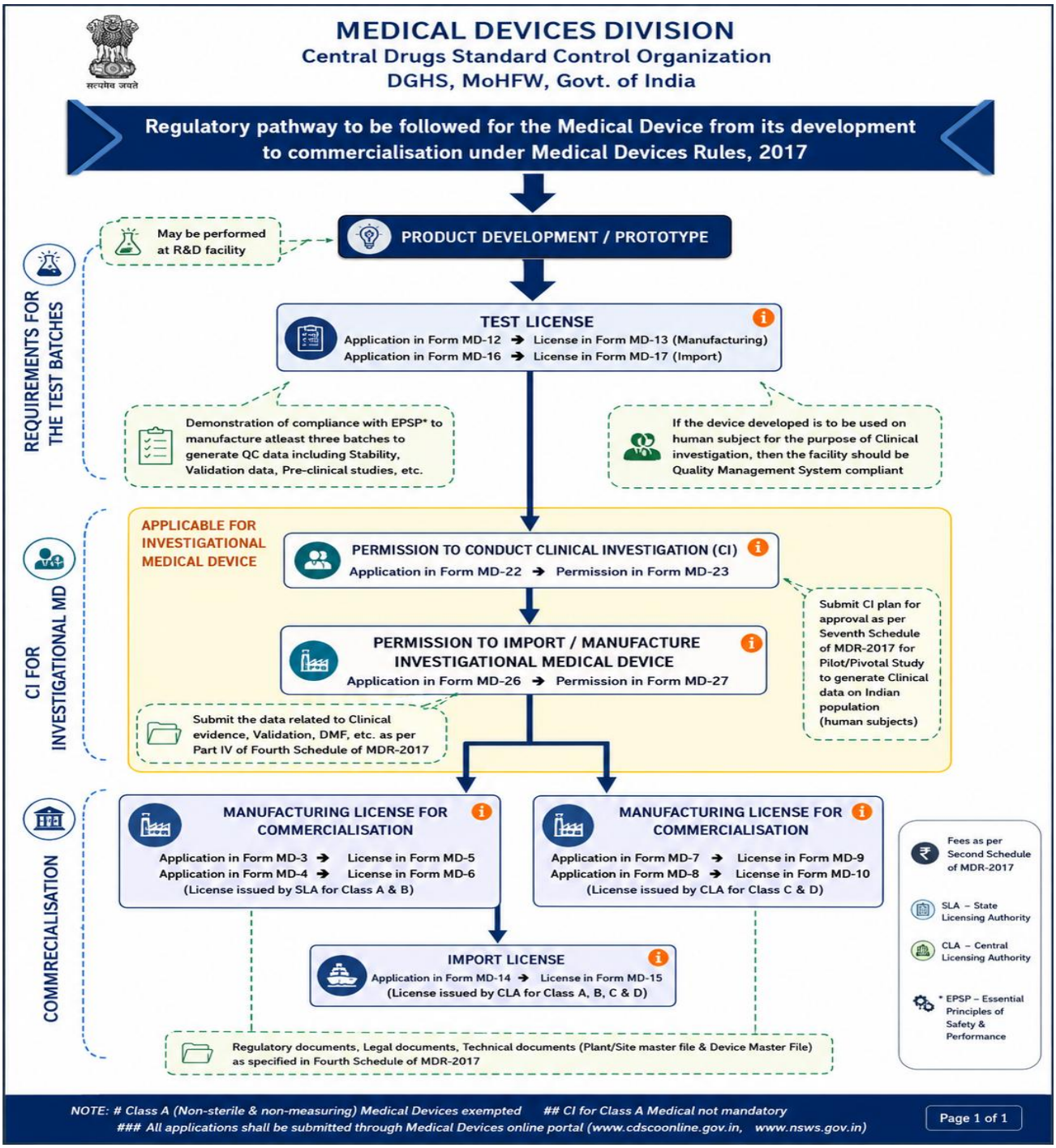

Figure 1. Flow chart illustrating the regulatory pathway to be followed for MDSW for marketing in the country.

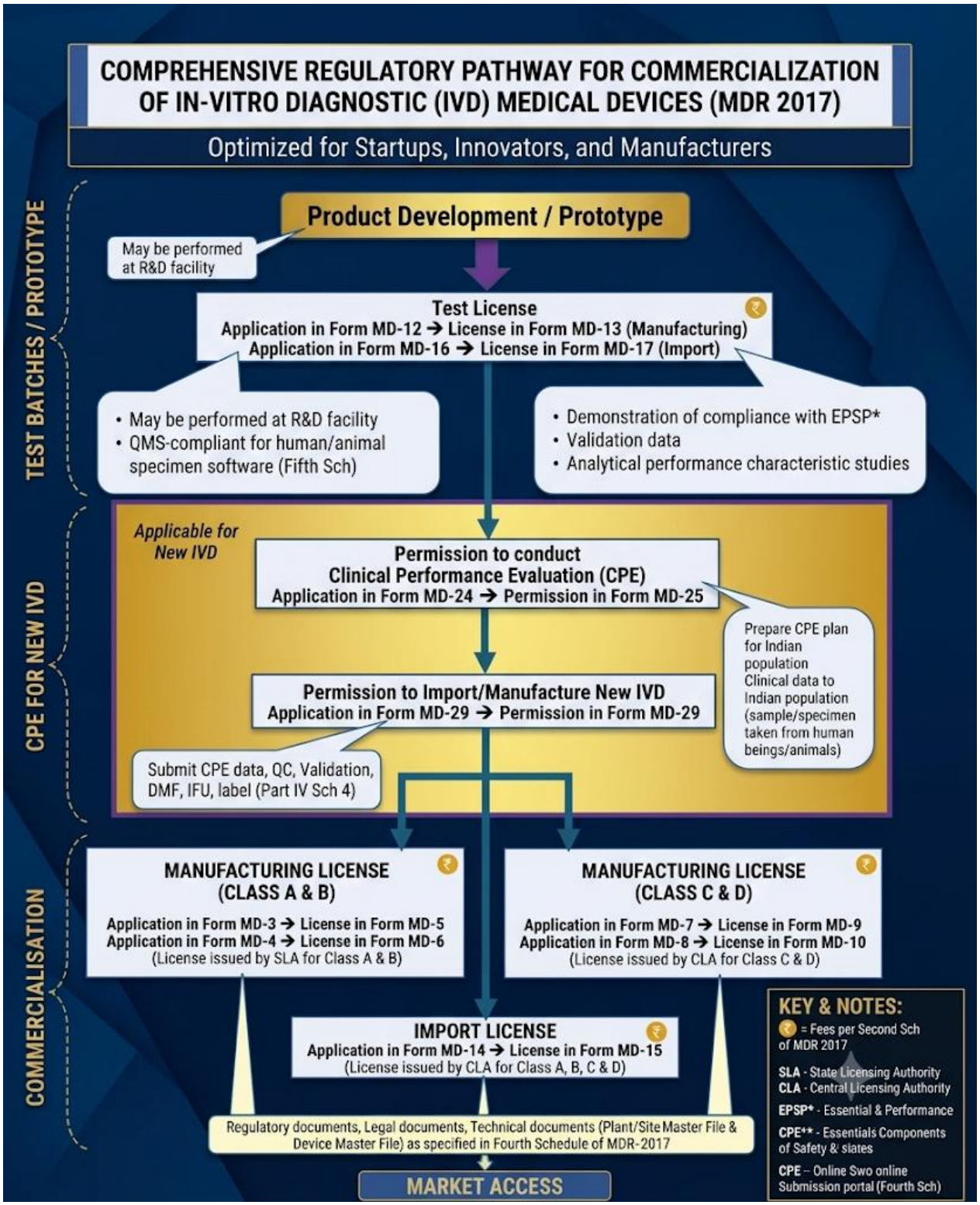

Figure 2. Flow chart illustrating the regulatory pathway to be followed for IVD MDSW for marketing in the country.

11.0 LICENSING AUTHORITIES FOR MEDICAL DEVICE SOFTWARE

- The MDSW are required to be licensed for manufacturing or import for its commercialization in the country by the LA as per the provisions prescribed under the MDR-2017 (**Table 5**).

Table 5. Licensing Authorities for grant of license/permission for manufacturing/import for marketing of medical devices in the country.

Licenses/Permissions under MDR-2017		**Class A**	**Class B**	**Class C**	**Class D**
Test license		CLA	CLA	CLA	CLA
Manufacturing license		SLA	SLA	CLA	CLA
Import licence		CLA	CLA	CLA	CLA
Clinical Investigation of Investigational MD/Clinical Performance Evaluation of new IVD		CLA	CLA	CLA	CLA
Permission for manufacturing of Investigational MD/new IVD		CLA	CLA	CLA	CLA
Sale and distribution		SLA	SLA	SLA	SLA
MSC/NCC	Manufacturing	SLA	SLA	CLA	CLA
	Import	CLA	CLA	CLA	CLA
FSC (only in case of manufacturing)		SLA	SLA	CLA	CLA
Special Code/Neutral Code/Risk Classification		CLA	CLA	CLA	CLA

Abbreviations: MD: Medical Device, CLA: Central Licensing Authority, SLA: State Licensing Authority, MSC: Market Standing Certificate, NCC: Non-conviction certificate, FSC: Free Sale Certificate.
NOTE:
i) The time line required for processing various license applications is mentioned in the MDR-2017.
ii) Class A (non-sterile and non-measuring) medical device is exempted from the Licensing requirements, only registration is required as per Chapter IIIB of MDR-2017 for its commercialization.

- The applicant(s) may ensure whether the MDSW, for which application is to be submitted, is listed in the risk classification lists published by the CLA. If so, the same may be followed as risk classification for the applied devices. (Refer **Section 7.0**)
- If the applied MDSW has a similar intended use as another MDSW mentioned in the published risk classification lists, they may follow the same risk classification for the applied MDSW.
- If the applied MDSW falls in the category of an investigational medical device (IMD) or new IVD medical device, the applicant(s) need to obtain prior permission of IMD/new IVD from the CLA under the MDR-2017 for conducting Clinical Investigation/Clinical Performance Evaluation in the country in Form MD-23/Form MD-25, respectively.
- It may also be ensured that the MDSW that attract the definition of IMD or new IVD do not get approved for marketing in the country without obtaining permission from the CLA for its import/manufacturing under the MDR-2017.

12.0 REQUIREMENTS AND PROCEDURE FOR REGULATORY SUBMISSIONS

12.1 Test Licence for the Purpose of Clinical Investigations or Test or Evaluation or Demonstration or Training of Medical Device Software, Not for Commercialization

- In order to obtain a Test licence (Form MD-13) to manufacture small quantities of MDSW for the purpose of Clinical Investigations or Test or Evaluation or Demonstration or Training, the applicant need to submit an online application in Form MD-12 in NSWS portal along with the requisite documents as per Rule 31 and fee as specified in the Second Schedule of MDR-2017.
- In order to obtain a Test licence (Form MD-17) to import small quantities of MDSW for the purpose of Clinical Investigations or Test or Evaluation or Demonstration or Training, the applicant needs to submit an online application in Form MD-16 in the NSWS portal along with the requisite documents as per Rule 40 and fee as specified in the Second Schedule

of MDR-2017.

- The requisite document checklists for MDSW are given in **Annexure A**. The list of documents required for such applications is also available in the NSWS portal.

NOTE:

i) The applicant may mention number of installations/number of copies/number of intended deployments of the MDSW as the quantity proposed for obtaining test license. The manufacturer/applicant should ascertain that the number of MDSW units required for purposes as mentioned in test licence application is properly justified.

ii) The application for test licence for an MDSW for its deployment/installation in multiple sites may be applied in parallel with application for conducting clinical investigations on the said MDSW.

iii) In case of Software-as-a-Service (SaaS), risk assessment pertaining to hosting in Cloud may be conducted on a case-by-case basis. The applicant should provide information on whether the SaaS is hosted on a Cloud server empanelled by the Ministry of Electronics and Information Technology (MeitY, Government of India)

(https://www.meity.gov.in/static/uploads/2026/03/a49a9e2bfb5bbd9057cf3efafda5b8d7.pdf).

iv) Manufacturers should implement baseline security controls for hosted environments to ensure confidentiality, integrity, and availability of safety-relevant data and functions.

v) In the case of on-premises deployments, risks associated with the local hosting environment, infrastructure, network security, system maintenance, access controls, backup and recovery mechanisms, and software updates may be assessed by the manufacturer on a case-by-case basis.

12.2 Clinical Investigation of Investigational Medical Device Software and Clinical Performance Evaluation of New In Vitro Diagnostics Medical Device Software

- No person or sponsor shall conduct any Clinical Investigation of an Investigational Medical device (IMD) or Clinical Performance Evaluation of new IVD on human participants or on any specimen derived from human body, respectively, except in accordance with the permission granted by the CLA as specified in MDR-2017.
- For MDSW that fall under the definition of an IMD or new IVD medical device, a permission to conduct Clinical investigation (Form MD-23) or Clinical Performance Evaluation (Form MD-25), respectively, is required to be obtained by the CLA by submitting an application through the CDSCO MD online portal with requisite documents (Refer Chapter VII, MDR-2017) and fee as specified in the Second Schedule of MDR-2017.
- The requisite document checklists for MDSW are given in **Annexure A**. The list of documents required for such applications is also available in the CDSCO MD Online portal.

NOTE:

The exemptions from conducting clinical investigations can be referred from Chapter VII of the MDR-2017, provided the CLA is satisfied with the data of safety, performance and materiovigilance of the device, and there is no evidence or theoretical possibility, on the basis of existing knowledge, of any difference in the behaviour and performance of the applied MDSW in the Indian population.

12.3 Permission to Manufacture/Import Investigational Medical Device (IMD)/New IVD prior to commercialization

- In case of IMD, a permission in Form MD-27 shall be obtained from CLA for the import/manufacture IMD prior to grant of import/manufacturing license for marketing in the country (Chapter VIII, MDR-2017).
- In case of new IVD, permission in Form MD-29 shall be obtained from CLA for the import/manufacture new IVD prior to grant of import/manufacturing license for marketing in the country (Chapter VIII, MDR-2017).
- The applicant shall submit application in Form MD-26 through the CDSCO MD Online portal along with requisite documents and fee as specified in the Part IV of Fourth Schedule and Second Schedule, respectively, of MDR-2017 for obtaining permission in Form MD-27 for import/manufacturing of IMD in the country.
- The applicant shall submit application in Form MD-28 through the CDSCO MD Online portal along with requisite documents and fee as specified in the Part IV of Fourth Schedule and Second Schedule, respectively, for obtaining permission in Form MD-29 for import/manufacturing of new IVD in the country.
- In case the clinical investigation or clinical performance evaluation is conducted on such MDSW in India, then the clinical data generated is required to be submitted along with the above-mentioned application.
- The requisite document checklists for MDSW are given in **Annexure A**.

NOTE:

For more details, please refer to Chapter VII and Chapter VIII of MDR-2017.

12.4 Documents required for grant of Manufacturing/Import Licence for Sale or for Distribution of Medical Device Software

- The requisite document checklists (specific to the type of licence application) for MDSW and IVD MDSW are given in **Annexure A**.
- The applicants may refer to **Figure 1** and **Figure 2** for determining the corresponding Application Form (Legal form) number.
- In case, any of the documents specified in the checklist is deemed not applicable, then the applicant needs to submit the rationale/justification for the non-applicability of such document/requirement for the applied MDSW.
- The timeline for all regulatory activities, viz. import, manufacturing, clinical investigations, post-approval changes/notifications, etc., may be referred from the MDR-2017.
- Also, the applicant may refer the Tool Tips for information that needs to be filled in the Legal Form and also the technical documents that need to be uploaded as part of a checklist for review by the LA. The Tool Tips are published on the CDSCO website (www.cdsco.gov.in).

12.4.1 Guidance on the legal documentation applicable for medical device software

- For obtaining a licence to manufacture or import for sale and/or marketing of MDSW in the country, the applicant(s) shall submit an online application in MD online portal (https://www.cdscomdonline.gov.in/) with the requisite fee, as specified in the Second Schedule along with respective documents as per the Fourth Schedule of MDR-2017.
- If any of the points in the application form is not applicable, then the applicant may mention “Not applicable” or “NA” (e.g, if shelf life is not applicable, it should be mentioned as “NA” in the application form).
- The Site/Plant master file may outline the infrastructure and work environment (such as equipment, information, communication networks, tools, and the physical facility, etc.) used to support the development,

production, and maintenance of the MDSW. The said details need to be maintained and submitted as part of the Site/Plant Master File.

- In addition, the organization chart and personnel qualification details of the organization is also required to be submitted.
- If any of the contents of the Site or Plant master file (as specified in Appendix I, Part III of Fourth Schedule of MDR-2017) is deemed not applicable, then the applicant(s) needs to submit the rationale/justification for the non-applicability of such requirement for MDSW.
- The manufacturers shall furnish details on company/firm constitution along with a copy of the establishment/site ownership/tenancy agreement. These documents shall be duly notarized.
- In case of import, the applicant shall furnish a Power of Attorney (PoA) along with undertaking from the authorized agent as per Part I of Fourth Schedule of MDR, 2017. The PoA must be duly authenticated in India either by a Magistrate of First Class or by Indian Embassy in the country of origin or by an equivalent authority through apostille.
- The applicants are advised to go through the document checklists available on the CDSCO MD Online portal (also provided in **Annexure A**) for a complete list of legal documentation requirements.

12.4.2 Guidance on the technical documentation applicable for medical device software

(A) Executive Summary – Device description, intended use, specifications including variants, etc.

Software/Firmware Description

Software description, including overview of operationally significant software features, analyses, inputs and outputs is required to be added in the Device Master File (DMF).

a) Specify the name of the software

b) Specify the version of the software, provide a statement about software version naming (specify all fields and their meanings)

c) Provide a description of the software including the identification of the device features that are controlled by the software, the programming language/compiler versions used, hardware platform, operating system (if applicable), use of COTS software (if applicable), a description of the software development lifecycle.

d) Intended User/operator of the software

[Examples: patient (self-use), primary caregiver, primary care physicians, specialist physicians, radiologists, non-clinical user, etc.]

e) Intended patient population

[Examples: general population, specific vulnerable groups (pediatrics, geriatrics), specific age group, specific ethnicity, etc.]

f) Intended user environment, or the setting within which the software is intended to be used

[Examples: non-clinical environment (home use, etc.), general health care (dental/general physician's clinics, primary care centers, etc.), specialty health care (emergency rooms, operation theaters, oncology departments, etc.)]

g) Analysis methodology used (if any)

[Examples: Rule-based calculations, online test administration, artificial intelligence (AI)/machine learning (ML), neural networks, fixed or adaptive algorithms]

h) Role of software and its output within the healthcare intervention

i. Whether the software impacts/influences or replaces any otherwise manual or clinician performed actions?

   [Examples: automated steps, triages patients, provides a definite diagnosis or suggests likely diagnosis for further confirmation by physician, performs or recommends treatment, identifies a region of interest for further review]

ii. Contribution to the clinical decision

   [Examples: intended as an aid to current practice, intended to replace all or a part of a current practice, etc.]

iii. Whether the intended software output is dependent on other steps during the health care intervention

[Examples: software that use output/clinical decisions from prior steps such as medical image overlays and reconstruction]

i) Software inputs and outputs

i. Inputs and their format to the MDSW

[Examples: data, images (specify modality), measurements (specify units), sensor/attachments, report, questionnaire]

ii. Source of the inputs.

[Examples: user, other medical devices, other nonmedical devices or software.]

iii. If the software is designed to be interoperable and transmit, exchange, and/or use information through an electronic interface with another medical/nonmedical product, system, or device – specify the methods, standards, and specifications used.

iv. Outputs and their formats: include test setup, acceptance criteria, and results

[Examples: diagnostic information, treatment information, control signals for device hardware, images (specify modality), measurements (specify units), alarms, alerts, or reports, etc.]

The limitations of software outputs should be explicitly stated, including the extent to which clinical decision-making responsibility remains with healthcare professionals.

v. To whom are the outputs provided (output targets)?

[Examples: patients, caregivers, healthcare professionals, technicians, researchers, health records, interoperable systems, medical devices, etc.]

vi. Data or information flow of the software

[Examples: inputs or outputs transmitted locally, via cloud storage, by disk drive, or wirelessly]

vii. Whether the software interacts with any networked devices.

viii. Whether cloud or network storage is used.

ix. Degree of autonomy of software (i.e., whether its output impacts subsequent clinical action/decision without user intervention (autonomous), or requires a user supervision (supervised autonomy), or only intended as an aid for the user in clinical decision making (non-autonomous)).

j) Usability and Human Factors

i. Usability validation should reflect Indian clinical workflows and operational conditions.

ii. The manufacturer needs to consider the following:

- Language and interface accessibility
- Variability in operator training and expertise
- Infrastructure constraints in healthcare facilities

k) Software change management

i. Degree of learning, i.e., change autonomy

[Examples: self-learning (autonomous updates effectuated and controlled from within the software, externally controlled changes (non-autonomous updates either effectuated by the user or the manufacturer)]

ii. Domain of learning or change implementation

[Examples: international, national, regional, patient-specific, site-specific, etc.]

iii. Infrastructure for installation, updates and error corrections

[Examples: distribution channels such as app stores, web pages, web application, etc., and installation locations such as mobile phones, hardware medical devices, wearable devices, cloud, personal computers, etc.]

NOTE:

i) *In case of Software-as-a-Service (SaaS), risk assessment pertaining to hosting in Cloud may be conducted on a case-by-case basis. The applicant should provide information on whether the SaaS is hosted on a Cloud server empanelled by the Ministry of Electronics and Information Technology (MeitY, Government of India)*

ii) *Manufacturers should implement baseline security controls for hosted environments to ensure confidentiality, integrity, and availability of safety-relevant data and functions.*

iii) *In the case of on-premises deployments, risks associated with the local hosting environment, infrastructure, network security, system maintenance, access controls, backup and recovery mechanisms, and software updates may be assessed by the manufacturer on a case-by-case basis.*

(B) Substantial equivalence with predicate medical device software

B.1 The applicant shall submit evidence of substantial equivalence in a structured comparative (tabular) format between the **applied software and the predicate MDSW**. The definition of predicate device may be referred from **Section 4.13.**

B.2 The comparison shall demonstrate similarity (or justified differences) with respect to the intended use, risk class, applicable standards, design characteristics (*e.g., type of algorithm such as whether rule-based, or machine learning-based, etc.), platforms for operation/deployment environment, inputs required by the software, nature and type of output, target intended user of software output, training models used, if any, etc.*), performance *(analytical validation, sensitivity, specificity, accuracy, etc., as the case may be)*, safety, effectiveness, and other relevant technical and clinical characteristics (as applicable).

B.3 Minimum comparative parameters**:** The structured comparative table should be provided covering, at minimum, the following parameters:

Table 6. List of major comparative parameters for demonstrating substantial equivalence with predicate MDSW.

Category	Required Information (Predicate Software vs. Proposed Software)
Intended Use	Clinical purpose, indications, and scope of use
Risk Classification	Risk classification as per First Schedule of the MDR-2017 and justification
Design Characteristics	Software architecture, AI/ML vs. rule-based system, algorithm type
Platform	Operating environment (cloud, on-premise, mobile, embedded, etc.)
Input Data	Type, source, and format of inputs required
Output Characteristics	Nature of outputs (diagnostic, predictive, decision support, etc.)
Target Intended User	Intended end users (clinicians, technicians, patients, general population, etc.); May also include specific age-groups, if available
Intended Use Environment	Hospital settings, primary health care, tertiary care centres, homecare settings, etc.
Training Methodology	Details of AI/ML training models, datasets used, if applicable
Standards Compliance, if available	Applicable international/national standards followed
Performance Metrics, if available	Sensitivity, specificity, accuracy, robustness, etc.
Any other parameter, if available (*e.g., pertaining to safety profile, cybersecurity controls, etc.*)	

B.4 Where differences exist, the applicant shall provide a scientific justification demonstrating that such differences do not adversely impact safety, performance, or effectiveness.

NOTE:

Where no suitable predicate MDSW exists due to novelty of the technology,

*the applied MDSW may be considered as an IMD/new IVD and prior permission from CLA is required for conducting clinical investigations/clinical performance evaluation (and for import/manufacturing for marketing) in the country (Please refer **Section 12.2**).*

(C) Essential Principles of safety and performance

- The applicant shall refer to the Essential principles checklist for demonstrating conformity to the essential principles of safety and performance of the Medical Device, published on the CDSCO website.
- While demonstrating the conformance to the essential principles, the manufacturer is required to ensure the following for MDSW:

a) The software should be developed, manufactured and maintained in accordance with the state of the art taking into account the principles of development life cycle (e.g., rapid development cycles, frequent changes, the cumulative effect of changes), risk management (e.g., changes to system, environment, and data), including information security (e.g., safely implement updates), verification and validation (e.g., change management process).

b) Software that is intended to be used in combination with mobile computing platforms should be designed and developed taking into account the platform itself (e.g. size and contrast ratio of the screen, connectivity, memory, etc.) and the external factors related to their use (varying environment as regards level of light or noise).

c) Manufacturers should set out minimum requirements concerning hardware, IT networks characteristics and IT security measures, including protection against unauthorized access, necessary to run the software as intended.

(D) Risk management

The MDSW are associated with some unique challenges that are generally

not evident for other medical devices, which are summarized below:

a) Direct benefit and risks for patients are not always present.
b) Deployed on a multitude of technology/hardware platforms.
c) Interconnected to other systems and datasets.
d) Rapid development cycles and frequent changes.
e) Often an update made available by the manufacturer is left to the user of the MDSW to install.
f) Deployment at scale and at pace, outside control of manufacturer.
g) Information security with respect to safety considerations (e.g., Cyber security, preservation of patient confidentiality and privacy, integrity and availability of information). Local legislation and regulations on data protection and privacy are required to be complied with.
h) Computer-human interaction.

Considering this, the manufacturers/importers need to consider and comply with the following:

- Applicable standards such as IS/ISO 14971, IS/ISO 62304, ISO 82304, etc. need to be followed and complied to (**Section 8.0**).
- The risk management plan/protocol should be devised and the Risk Management Report generated by the manufacturer as per the IS/ISO 14971 (and other applicable standards) shall be submitted as part of the license application as applicable (see **Annexure A** for submission requirements).
- The manufacturer/importer is required to consider and ensure implementation of surveillance/monitoring mechanisms for the risks associated with MDSW, in relation to injury or damage to the health of people and reduction of effectiveness, wherein “reduction of effectiveness” can result from inadequate, incorrect, or absent data supplied to a human or product at an inappropriate time, rate, or with an inadequate method.
- The manufacturers/importers are required to consider and ensure

implementation of surveillance/monitoring mechanisms for indirect harms associated with MDSW (e.g., introduction of unintended bias in clinical decision-making because of an MDSW output may be considered as an indirect harm to the patient).

NOTE:

Indirect harm, for the purpose of this document, refers to patient injury or health damage caused by erroneous, delayed, or misleading software information, or a reduction in device effectiveness, rather than a direct physical failure.

- The process for identification and analysis of these risks (including indirect harms) should be considered iteratively and should be carried out over the total product lifecycle of the device.
- The risk management process should be integrated across the entire lifecycle of the MDSW.
- Software change management should be ensured and properly documented as part of the risk management plan by the manufacturer.
- Details on periodic updation of the MDSW and corrections/changes associated with risks should be added in the risk management report.
- In this regard, an Algorithm Change Protocol (ACP) may be devised, wherever applicable, based on the nature and risks associated with the MDSW. The ACP shall include an overview of all the procedures to be followed so that any changes/modifications made in the MDSW do not compromise its safety and intended use. The ACP may contain the following information:

  a) A data management plan that includes a data management protocol, risk assessment plan, new data collection protocols, and quality assurance process.
  b) A performance evaluation and monitoring plan, describing assessment metrics, a statistical analysis plan, assessment frequency, performance targets, and post market monitoring

overview.

c) An algorithm retraining plan (if applicable) to described retraining objectives, methods that will be employed to improve algorithm performance, the approach to performance evaluation, and potential impacts to intended purpose.

d) A software update plan, describing version tracking, verification and validation methods, update triggers, update procedures, and approaches to transparently communicating updates to end users.

e) A rollback plan, describing triggers, backup and recovery procedures, and communication to users.

- The ACP may be submitted as part of the Risk Management File, if applicable.
- Risks associated with process validation and benchmarking should be carefully documented and assessed – including the decisions for selecting specific datasets, reference standards, parameters and metrics to justify such validation processes.

  [For example, in case of AI-based SaMD, careful consideration needs to be given to documenting how and why specific data or datasets are selected to train, externally validate and retrain the model (e.g. post-deployment retraining).]
- The applicants should ideally include details pertaining to the following in the risk management documentation, wherever applicable:

  a) hazard identification,
  b) severity/probability analysis,
  c) cybersecurity risks,
  d) AI bias risks,
  e) misuse scenarios,
  f) mitigation controls,
  g) residual risk analysis.

- Risks associated with MDSW may be mapped as given in **Table 7**.

Table 7. Risk domain mapping of MDSW.

Risk Domain	MDSW (other than IVD software) (including AI-enabled MDSW)	IVDs (including AI-enabled diagnostics)
Clinical Risks	Incorrect diagnosis, treatment recommendations, clinical decision support errors, Device malfunction leading to patient harm	False positives/negatives affecting diagnosis and treatment
Algorithmic Risks	Bias, lack of explainability, model drift, poor generalizability, Embedded software errors, algorithm updates affecting performance	Bias in interpretation algorithms, population-specific performance limitations, drift and hallucination for AI /ML based MDSW.
Data-Related Risks	Poor quality training data, privacy breaches, data representativeness issues, Sensor data integrity issues, data corruption	Sample quality, laboratory data integrity, demographic bias in datasets
Operational Risks	User misuse, inadequate training, workflow disruption, Incorrect installation, maintenance failures, usability errors at interface and experience (UI/UX), interoperability (data exchange) and cross platform (multiple OS/hardware) risks.	Laboratory workflow errors, inadequate operator training, usability errors at interface and experience (UI/UX), interoperability (data exchange) and cross platform (multiple OS/hardware) risk
System Infrastructure Risks	Cybersecurity vulnerabilities, cloud outages, interoperability failures, Hardware-software integration failures, cybersecurity threats	Laboratory information system integration failures, connectivity issues
Environmental & Contextual Risks	Performance degradation across settings, unintended societal impacts, Variability in clinical environments affecting performance	Variations in laboratory settings, population characteristics, resource constraints
Other relevant information	Pertaining to safety and performance of the MDSW.	

(E) Device Design

- Manufacturers should implement secure-by-design principles during the architecture and design of MDSW. To this effect, they should ideally perform formal threat modelling at the design stage to identify, analyse,

and mitigate cybersecurity risks, particularly for network-connected, cloud-based, and interoperable MDSW.

- Manufacturers should ensure that the MDSW is delivered with secure default configurations. It should be designed such that unnecessary services, ports, interfaces, and debug functions can be disabled by default.
- Further, manufacturers should design MDSW to maintain safe operation during cybersecurity incidents, including partial loss of connectivity, denial-of-service conditions, or integrity compromise.

System and Software Architecture Design/Diagram:

- Manufacturers may ensure that a security-focused architecture review of MDSW is conducted. Such review should include identification and assessment of attack surfaces, trust boundaries, external interfaces, Application Programming Interfaces (APIs), and interoperability points, to ensure that all potential cyber entry points are systematically identified and appropriately controlled.
- As part of technical documentation, detailed depiction of functional units and software modules may be submitted. Such depiction should include state diagrams as well as flow charts to present a roadmap of the device design to facilitate a clear understanding of:

  a) The modules and layers that make up the system and software.
  b) The relationships among the modules and layers.
  c) How users or external products, including IT infrastructure and peripherals (e.g. wirelessly connected medical devices) interact with the system and software.
  d) How users or external products, including IT infrastructure and peripherals (e.g., wirelessly connected medical devices) interact with the system and software.

  [Example: A module could represent – a finished hardware device within a system of hardware and software products, a hardware component within a finished hardware device, a finished software product within a system of

software products, or a software function within a finished software product. A module is not specifically meant to describe code-level software functions.]

- Where MDSW systems (including AI-based systems) create, process, exchange, analyze, or display patient health information, developers and implementers should align with the Ayushman Bharat Digital Mission (ABDM) framework by supporting interoperable, standards-based data exchange; consent-based access to health records; privacy and confidentiality protections; secure health information exchange; and integration with relevant ABDM building blocks such as ABHA, Health Facility Registry (HFR), and Healthcare Professional Registry (HPR), where applicable.
- In-vitro diagnostic systems, digital pathology solutions, radiology AI systems, and diagnostic decision-support software deployed within healthcare facilities should be designed such that they support ABDM-compliant health record generation and exchange, maintain patient consent controls, and enable traceability of diagnostic outputs to registered facilities and authorized healthcare professionals.

Software Requirement Specifications:

- The software requirement specifications (SRS) document the requirements of the software. This typically includes functional performance, interface design, developmental, and other requirements for the software. In effect, this document describes what the MDSW is supposed to do.

[Example: Hardware requirements, programming language requirements, interface requirements, performance and functional requirements]

- The documentation should be presented in an organized format with sufficient information to understand the traceability of the information with other software documentation elements (such as risk management, software design specifications, architecture design chart, etc.)

Software Design Specifications:

- The software design specifications (SDS) describe the implementation of the requirements for the MDSW. The SDS describes how the requirements in the SRS are implemented.
- The documentation should include technical design details of how the software design correctly implements all the requirements of the SRS and how the design traces to the SRS in terms of intended use, functionality, safety and effectiveness.

(F) Software versioning and traceability

- The applicant(s) shall ensure traceability of the MDSW – this is essential for identification (e.g. software version) for the post-market traceability/follow-up (track and trace) of the software to the users (e.g. physicians or patients) in the event of a Field Safety Corrective Action (FSCA) or product defect in post market phase.
- Description of software versioning and traceability system implemented for the software may be included in the Device Master File.
- The documentation should include a history of tested software versions including the date, version number, and a brief description of all changes relative to the previously tested software version.

(G) Software verification and validation

The DMF should contain information on:

- The software design and development process.
- Evidence of the validation of the software, as used in the finished device. If there are differences between the version of software that was tested and the version in the finished device, then a description of the differences and an assessment of the potential effect of the differences on the safety and effectiveness of the device needs to be submitted.
- Summary results of all verification, validation and testing performed both in-house and in a simulated or actual user environment prior to final

release. It should also address all of the different hardware configurations and, where applicable, operating systems identified in the labelling.

- For MDSW that work together or in conjunction with other medical devices or systems, issues relating to the interoperability have to be carefully considered and addressed as appropriate.
- Implemented cyber security risk control methods that should be verified and validated against specified design requirements or specifications prior to implementation.
- Where models are trained or validated in non-Indian settings, justification shall be provided for applicability to Indian clinical environments.
- For AI-based MDSW, the applicant shall disclose dataset composition used for training, validation, and testing, including demographic distribution, geographic origin, and clinical diversity.
- The applicant shall provide evidence addressing model bias, generalizability, and robustness across sub-populations relevant to India.
- The documentation should also including system level software test protocol, including expected results, pass/fail determination, and system level test report.

NOTE:

Manufacturers are required to mention whether the datasets used in training AI models are real-world data obtained from public databases or published literature, or whether it is artificially generated (synthetic data).

(H) Clinical Evidence

- MDSW may function in a way that instead of yielding a direct clinical output, they provide indirect clinical benefits to the subject such as:

    a) Improving quality and consistency of care
    b) Enhancing human abilities and mental health support
    c) Removing administration burden
    d) Timely care, informed decision

e) Earlier diagnosis and prevention
f) Reducing cognitive errors
g) Reducing burden of diagnostic and treatment activities for a patient

- The manufacturer should ensure determination of the clinical association/scientific validity of an MDSW, demonstrating that it corresponds to the clinical situation, condition, indication or parameter defined in its intended purpose.
- Manufacturers of AI-enabled MDSW intended for use in India should demonstrate that device performance has been evaluated in at risk populations, healthcare settings, and operational environments representative of the intended use.
- Where relevant, manufacturers should assess and mitigate clinically significant differences in performance across diverse demographic, geographic, linguistic, and healthcare-system contexts.
- Types of data to support valid clinical association/scientific validity may include:

a) Technical Standards, Literature searches
b) Professional medical society guidelines
c) Systematic scientific literature review
d) Clinical Investigation/Clinical performance studies
e) Published Clinical data
f) Secondary data analysis

- Validation of technical performance/analytical performance – to demonstrate the ability of an MDSW to accurately, reliably and precisely generate the intended output, from the input data. Evidence supporting technical performance/analytical performance should be generated through verification and validation activities.
- Validation of the Clinical Performance is the demonstration of the ability of an MDSW to yield clinically relevant output in accordance with the intended purpose.

- Details of the Clinical Investigation/Clinical Performance evaluation (including study outcomes) of MDSW may be submitted as part of the Device Master File, if applicable.
- Performance evidence generated outside India may be supplemented with validation in representative Indian populations. Such validation should be conducted in intended clinical environments and should demonstrate safety, effectiveness, and robustness under local conditions of use.
- The applicant may submit the real-world evidence (RWE) (or, evidence as collected during post-market surveillance (PMS), if available) as part of clinical evidence for demonstrating safety and performance of the applied MDSW.

(I) Software Labelling

- The Device Master File should typically contain a complete set of labelling information associated with the device as per the requirements of Chapter VI of MDR-2017.
- Generally, device labelling information includes the following:

  a) Copy of original label of the device, and its packaging configuration;
  b) Instructions for use (IFU; Prescriber's/User manual);
  c) Product brochure; and
  d) Promotional material.

- The MDSW should be identified with an identifier, such as version, revision level and date of build release/issue.
- Software can be supplied in different forms and there may be difficulties in presenting device information for certain forms (e.g. web-based software). Generally, software can be broadly categorised into two groups based on the mode of supply:

  a) supplied in physical form, or
  b) supplied without a physical form

- If the MDSW is delivered on a physical medium, e.g. CD or DVD, each packaging level shall bear particulars printed in indelible ink on the label, as specified in Chapter VI of MDR-2017.
- For MDSW without a physical form or packaging, the IFU may be available electronically (e-IFU). In this situation, as a good practice, the device may incorporate a means for the user to easily access the electronic label via the software itself or via inclusion of a web address or other means.
- The developer may display the regulatory requirement (Please refer Chapter VI, MDR-2017) on the primary landing page or via inclusion of a web address, etc., and may be displayed as a screen shot in any app store.
- The software label should include:

  a) Name of hardware medical device, if applicable
  b) MDSW name
  c) Version/build number
  d) Manufacturer name & address
  e) License number/registration details
  f) Manufacturing date/release date
  g) Intended use/indications for use/Instructions for use
  h) Storage and handling conditions, if any
  i) Other information as per Rule 44 of Medical Device, 2017

- A screenshot of the software graphical interface (e.g., splash screen) which displays the elements for identification, including software version number, may be submitted as a part of Device Master File.
- For downloadable software where the downloading and installation is to be done by the end-user, it may be ensured that the user is provided with sufficient information (e.g., Internet address/weblink to download the software, software installation guide or procedure, etc.) for proper installation of such downloadable software.
- An appropriate system for version controls and access rights controls

should be in place to allow timely tracing of the software versions.

- Software lacking a user interface such as middleware for image conversion, shall be capable of transmitting the label information through an Application Programming Interface (API).

12.5 POST MARKETING REGULATORY REQUIREMENTS

12.5.1 Fulfillment of conditions of license/permissions

- The license holder is required to comply with the conditions of the licence/permission as prescribed in the MDR-2017 with respect to the post marketing requirements for medical devices.
- In case any special (additional) conditions are imposed by the Licensing Authority at the time of approval of the licence/permission, then the applicant(s) shall submit a condition fulfilment application through the Online System for Medical Devices accompanied with supporting documents within the time period specified by the Licensing Authority

12.5.2 Post approval change notification

- Changes to an MDSW refer to any modifications made throughout its lifecycle, including the maintenance phase.
- An MDSW may undergo a number of changes throughout its product life cycle.
- The changes are typically meant to:
  a) Correct faults,
  b) Improve the software functionality and performance to meet customer demands,
  c) Keep a software product usable in a changed or changing environment.
  d) Ensure safety and effectiveness of the device is not compromised (e.g. security patch).
- Due to the non-physical nature of software, a software change management process needs specific considerations to achieve the

intended result regarding traceability and documentation.

- Major changes and minor changes to medical devices are specified in the Sixth Schedule of MDR-2017.

Major Changes (where approval from the LA is required)

Subject to the provisions laid out in the Sixth Schedule of the MDR-2017, changes in respect of following shall be considered as major change in respect of MDSW:

a) Design characteristics which shall affect quality in respect of the specifications, indication for use, and performance of the MDSW or the connected hardware medical device (if any);
b) Modifications to the software design or system requirements, including the addition of a new clinical claim or a new data input type.
c) The intended use or indications for use;
d) The name and address of, -
    i. the domestic manufacturer or its manufacturing site;
    ii. overseas manufacturer or its manufacturing site (for import only);
    iii. authorized agent (for import only).
e) Label excluding change in font size, font type, colour, label design.
f) Manufacturing process, equipment or testing which shall affect quality of the device.
g) Version change which affects intended use, safety and/or effectiveness, risk control measures, etc. of the MDSW.

Minor Changes (To be Notified to the LA)

Subject to the provisions laid out in the Sixth Schedule of the MDR-2017, changes in respect of following shall be considered as minor change in respect of MDSW:

a) Design which shall not affect quality in respect of its specifications,

indications for use, performance and stability of the MDSW or connected hardware medical device.

b) In the manufacturing process, equipment, or testing which shall not affect quality of the MDSW or the connected hardware medical device.

c) Revisions for bug fixes and security patches, etc., which does not affect intended use, safety and performance of the MDSW.

d) Version change which does not affect intended use, safety or effectiveness of the MDSW.

e) Performance re-tuning within validated ranges.

- In case of change in constitution of the firm, which is considered as a major change, the same shall be notified to the LA as per the stipulated timeline specified under the MDR-2017 and the applicant shall submit a fresh application along with the requisite documents to obtain a new licence for marketing of MDSW in the country under the MDR-2017.
- The licence holder shall submit a PAC notification/request through the Online System for Medical Devices to the CLA or the SLA, as the case may be, for any major/minor changes (including software version update) to MDSW.

NOTE:

In case any changes are to be made as per the approved ACP, the manufacturer/importer (on behalf of overseas manufacturer) shall submit an approval request/notification with the LA. PAC approval is mandatory for major changes, while notification is required for minor changes.

12.5.3 Post marketing surveillance (PMS)

- Once the MDSW is in the market, the manufacturer/importer is required to maintain vigilance for any direct/indirect harm to the user/patient(s), reduction in effectiveness, and any vulnerability to intentional and unintentional security threats as part of PMS.

- The applicants are required to submit a post-market surveillance (PMS) plan proportionate to the risk class of the device.
- The PMS activities that manufacturers should follow include:

  a) Complaint handling,
  b) Adverse event reporting,
  c) Software patch tracking,
  d) Drift monitoring for AI,
  e) Cybersecurity monitoring,
  f) Field corrective actions.

- Corrections and corrective actions may be required when a process is not correctly followed or the MDSW does not meet its specified requirements (i.e., when a nonconforming process or product exists).
- Non-conforming MDSW should be contained to prevent unintended use or delivery. The detected nonconformity should be analyzed and actions taken to eliminate the detected nonconformity (i.e., correction); and to identify and eliminate the cause(s) of the detected nonconformity (i.e., corrective action) to prevent recurrence of the detected nonconformity in the future. In some cases, a potential nonconformity may be identified, and actions such as safeguards and process changes can be taken, to prevent nonconformities from occurring (i.e., preventive action).
- Nonconformities in a MDSW may lead to inaccurate or incorrect test results, mixing up of patient results, failure to deliver therapy, calibration errors resulting in incorrect patient positioning during therapy, incorrect image display, calculation errors, software bugs leading to malfunction, etc.
- AI-based MDSW should be continuously monitored for performance, bias, and drift, which may lead to nonconformities. Proper documentation and logging of such events should be maintained.
- For AI/ML-based or adaptive systems, the plan should ideally include mechanisms for monitoring:

a) Model performance drift
b) Error rates and false outputs
c) Clinical safety signals
d) User feedback integration

- A detailed procedure/plan should be devised for post-market surveillance (PMS) and response. The manufacturer/importer needs to ensure that they have the ability to handle product recalls and implement corrective actions (e.g. bug fixes, cyber alerts, software patches) in a timely and effective manner (Planning, conducting and reporting of corrective action), and to identify any recurring problems requiring attention.
- The licence holder should ensure that mechanisms are implemented for collection of real-world evidence (RWE) from Indian healthcare settings as part of PMS.
- A Field Safety Corrective Action (FSCA) may be initiated when the manufacturer/importer becomes aware of such nonconformities/certain risks associated with use of the MDSW through post-market monitoring and surveillance, such as through tracking of product complaints/feedback.
- Adverse events (AE) for MDSW may arise due to:

a) Shortcomings in the design of the software
b) Inadequate verification and validation of the software code
c) Inadequate instructions for use
d) Software bugs introduced during implementation of new features
e) Drift in AI algorithm which may affect its performance.

- The license holder shall inform the SLA or the CLA, as the case may be, of the occurrence of any suspected unexpected serious adverse event (SUSAR) and action taken thereon including any product recall within 15 days of such event coming to the notice of the license holder.
- The importer shall inform the Licensing Authority, within a period of 15 days of any administrative action taken on account of any adverse

reaction, such as market withdrawal, regulatory restrictions, cancellation of authorization or declaration of the MDSW as not of standard quality by the regulatory authority of the country of origin or by any regulatory authority of any other country, where the medical device is marketed, sold or distributed.

- The manufacturer/importer shall immediately inform SLA or CLA, as the case may be, if there are reasons to believe that a MDSW which has been placed in the market, may be unsafe for the patients, wherein unsafe in terms of MDSW refers to erroneous results leading to negative impact (whether direct or indirect) on patient health or/and introduction of bias in clinical decision-making to the extent that it may negatively impact the health of user.

[Examples: malfunction of an implanted pulse generator because of erroneous control/influence by the respective software; erroneous calculations in radiation therapy planning leading to exposure to incorrect radiation intensities, etc.].

- A summary of required documentation is provided in **Table 8.**

Table 8. PMS activities that should be included in documentation.

Activity	Manufacturer Expectations
Continuous Performance Monitoring	Monitor safety, effectiveness, accuracy, and clinical performance throughout deployment
Algorithm Change Management	Maintain documented procedures for software updates, model modifications, retraining, and version control
Performance Drift and AI Hallucination Detection	Identify and address clinically significant degradation in performance over time and continuous monitoring of AI-related hallucinations, wherein a hallucination refers to creation of a factually false or fabricated data by an AI model with high confidence.
Real-World Performance Evidence	Periodically assess performance using real-world operational data, where feasible
Population and Setting Validation	Evaluate performance across relevant patient groups and healthcare settings intended for use in India.
Transparency and Traceability	Maintain records of updates, performance assessments, corrective actions, and significant modifications

NOTE:

i) The licence holder is responsible for reporting to the LA for all the serious adverse events and malfunctions of the MDSW, which lead to/cause or contribute to a death or serious injury. The vigilance reporting protocol (PMS plan) should cover actions to be taken by the manufacturer for all adverse events on the MDSW.

ii) The software manufacturers may report adverse events with the Materiovigilance Programme of India (MvPI). Such reporting may also be documented in their vigilance reporting system. For detailed information, the applicant may visit MvPI website established by the Indian Pharmacopeia Commission (IPC):

https://www.ipc.gov.in/mandates/materiovigilance-programme-of-india-mvpi/about-us.html.

- The manufacturer/importer should ensure availability of sufficient infrastructure/mechanisms and resources for receiving continuous customer/user feedback for the MDSW in terms of its performance, safety and efficacy.
- The manufacturer/importer may recall a MDSW from the market, subject to the conditions laid down in the MDR-2017, wherein product recall in the case of MDSW may refer to a complete or partial halt in distribution of the said software from some or all channels/domains, and/or uninstalling/decommissioning the said software from some or all available networks and hardware devices.
- MDSW that are approved for marketing after clinical investigation(s) (such as medical devices that do not have a predicate device), should be closely monitored for their clinical safety once they are marketed. The manufacturer/importer(s) shall furnish Periodic Safety Update Reports (PSURs) as per the conditions laid out in the MDR-2017, in order to —
  a) Report all the relevant new information from appropriate sources;
  b) Relate these data to patient exposure;

c) Summarize the market authorization status in different countries, if applicable, and any significant variations related to safety; and

d) Indicate whether changes will be made to product information in order to optimize the use of the product.

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Information and Resources:

1. CDSCO website. https://cdsco.gov.in/opencms/opencms/en/Home/

2. CDSCO Online System for Medical Devices. https://cdscomdonline.gov.in/NewMedDev/Homepage

3. Drugs & Cosmetics Act, 1940, Government of India.

4. Medical Devices Rules, 2017, Government of India

5. CDSCO Risk Classification Lists of Medical Devices (other than IVD Medical Devices):

https://www.cdscomdonline.gov.in/NewMedDev/ListOfApprovedRiskDevice

https://www.cdscomdonline.gov.in/NewMedDev/ListOfApprovedRiskNSSMDevice

6. Approved/Licenced Devices Database:

Medical Devices:
https://www.cdscomdonline.gov.in/NewMedDev/ListOfApprovedDevices

IVD Medical Devices:
https://www.cdscomdonline.gov.in/NewMedDev/ListOfIvdMdApprovedDevices

7. IPC: https://www.ipc.gov.in/

https://www.ipc.gov.in/mandates/materiovigilance-programme-of-india-mvpi/about-us.html

8. MeitY Important Links: https://www.meity.gov.in/

Cloud Selection Framework:

https://www.meity.gov.in/static/uploads/2026/03/a49a9e2bfb5bbd9057cf3efafda5b8d7.pdf

https://www.meity.gov.in/content/gi-cloud-meghraj

9. Ayushman Bharat Digital Mission: https://abdm.gov.in/

https://abdm.gov.in/health-tech-companies

https://sandbox.abdm.gov.in/sandbox/v3/faq

https://abdm.gov.in/strapicms/uploads/sandbox_guidelines_b39bcce23e.pdf

https://sandboxcms.abdm.gov.in/uploads/HIP_HIU_Guidelines_f85df336ec_9c57485ed7.pdf

10. ICMR Ethical Guidelines:
https://www.icmr.gov.in/icmrobject/custom_data/pdf/Ethical-

guidelines/Ethical_Guidelines_AI_Healthcare_2023.pdf

11. Frequently Asked Questions:

Medical Devices:

https://cdsco.gov.in/opencms/opencms/en/Medical-Device-Diagnostics/Medical-Device-Diagnostics/

IVD Medical Devices:

https://cdsco.gov.in/opencms/opencms/en/Medical-Device-Diagnostics/InVitro-Diagnostics/

12. Tool Tips for application forms and Guidance documents on regulatory certifications:

Medical Devices:

https://cdsco.gov.in/opencms/opencms/en/Medical-Device-Diagnostics/Medical-Device-Diagnostics/

IVD Medical Devices:

https://cdsco.gov.in/opencms/opencms/en/Medical-Device-Diagnostics/InVitro-Diagnostics/

13. Information on State Drug Controllers can be found at: https://cdsco.gov.in/opencms/opencms/en/State-Drugs-Control/

For further information and queries, you may visit:

Public Relations Office (PRO),
CDSCO Headquarters, FDA Bhawan,
New Delhi – 110002
Contact: 011-23216367 (Ext – 102), 011-23502915
e-mail: startupinnov@cdsco.nic.in

IT Helpdesk:

ithelpdesk.md@cdsco.nic.in; helpdesk.md@cdsco.nic.in

Annexure A: Document Checklists

NOTE:

1. In case any document in the given checklists is not applicable, a detailed justification with rationale for non-applicability needs to be submitted by the applicant.
2. Documents pertaining to cybersecurity verification, human factor validation, etc., may be added as a part of 'Verification and validation of medical device' checklist section.

(A) Checklist for the grant of **Test Licence** to manufacture medical devices for the purposes of clinical investigations or test or evaluation or demonstration or training under the Medical Devices Rules, 2017

Form Type:	**Test license application in Form MD-12 (MD)**	
Section no.	**Checklist Name**	**Reference Section**
1.0	Covering Letter mentioning the objective of test license	**12.1**
2.0	Brief description of applied medical device including the Intended use, etc.	
3.0	Manufacturing Flow chart, Test specification and test protocol for the applied medical device(s)	
4.0	Proposed package insert/ IFU, literature, user manual, pack size and other additional document (if any)	
5.0	List of equipment, instruments for manufacturing and testing of applied Medical Devices	
6.0	List of qualified personnel for manufacturing and testing of applied Medical Devices	
7.0	Justification of quantity proposed to be manufactured.	
8.0	Undertaking stating that the required facilities including equipment, instruments, and personnel have been provided to manufacture such medical devices.	
9.0	Copy of manufacturing licence of the premises where the development/testing activity is to be carried out, under these rules (if any)	
10.0	Approval letter authorizing to undertake research and development activities issued by any government organization (if any)	
11.0	Fee Challan	
12.0	Legal Form	

(B) Checklist for the grant of **Test Licence** to manufacture In-vitro diagnostic medical devices for the purposes of clinical investigations or test or evaluation or demonstration or training under the Medical Devices Rules, 2017

Form Type:	**Test license application in Form MD-12 (IVD)**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.1**
2.0	Brief description of the medical device including intended use, material of construction, design	
3.0	Undertaking stating that the required facilities including equipment, instruments, and personnel have been provided to manufacture such medical devices.	
4.0	List of equipment, instruments	
5.0	List of qualified personnel	
6.0	Justification of quantity proposed to be manufactured	
7.0	Test protocol, if any	
8.0	Quality certificates like QMS etc., of the manufacturer from where the raw material is procured, if any	
9.0	Copy of Manufacturing licence issued under these rules, if any	
10.0	Approval letter authorizing to undertake research and development activities issued by any government organization, if any	
11.0	Other documents, if any	
12.0	Schematic plan of premises	
13.0	Certification of site with detailed raw component	
14.0	Detailed description of how the raw material will be procured so as the entire process is scrutinized	
15.0	Fee Challan	
16.0	Legal Form	

(C) Checklist for the grant of **Test Licence** to import medical devices for the purposes of clinical investigations or test or evaluation or demonstration or training under the Medical Devices Rules, 2017

Form Type:	**Test license application in Form MD-16 (MD)**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter mentioning the objective of test license	**12.1**
2.0	Brief description of the applied medical device	
3.0	Proposed package insert/ IFU, literature, user manual, pack size, Quality certificates and other additional document (if any)	
4.0	Justification of quantity proposed to be imported.	
5.0	Test specification and test protocol for the applied medical device	
6.0	An undertaking stating that the medical device proposed to be imported to be used exclusively for purpose specified at serial number 7 of Form MD-16 and shall not be used for commercial purpose.	
7.0	An undertaking stating that required facilities including equipment, instruments, and personnel will be provided to test or evaluate medical devices	
8.0	Fee Challan	
9.0	Legal Form	

(D) Checklist for the grant of **Test Licence** to import In-vitro diagnostic medical devices for the purposes of clinical investigations or test or evaluation or demonstration or training under the Medical Devices Rules, 2017

Form Type:	**Test Licence application in Form MD-16 (IVD)**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter mentioning the objective of test license	**12.1**
2.0	Brief description of the applied medical device	
3.0	Justification of quantity proposed to be imported along with its utilization break-up	
4.0	Test specification and protocol along with applicable standards	
5.0	Quality certificates like QMS etc., of the manufacturer, if any	
6.0	Labels and IFU, as per Rule 48	
7.0	Other document, if any	
8.0	An undertaking stating that the medical device proposed to be imported to be used exclusively for purpose specified at serial number 7 of Form-16 and shall not be used for commercial purpose.	
9.0	An undertaking from the testing laboratory, stating that required facilities including equipment, instruments, and personnel will be provided to test or evaluate medical devices	
10.0	Fee Challan	
11.0	Legal Form	

(E) Checklist for the grant of permission to conduct clinical investigation on investigational medical device(s) under the Medical Devices Rules, 2017.

Form Type	Application in Form MD-22	
Section No.	**Checklist Name**	**Reference Section**
1.0	Cover Letter mentioning whether the Study is Pilot/Pivotal/ Postmarketing clinical study along with its objective	**12.2**
2.0	Application (Form MD-22)	
3.0	Fees Challan	
4.0	Justification for the proposed class of device along with supporting documents	
5.0	Regulatory status of the device if approved by any National regulatory authority (if any) along with the copy of approval letter	
6.0	Design analysis data of the Investigational medical device	
6.1	Design input, design output and design control documents, etc. along with design verification and validation report	
6.2	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the Medical Device	
6.3	Device specification including the test parameters and its reference protocol to be carried out on the finished device along with the test report	
6.4	Mechanical test, electrical tests, Reliability tests, software verification & validation, any performance test, Ex vivo tests, etc.(wherever applicable)	
7.0	Stability Study data generated (if any)	
8.0	Risk Management Report on the Investigational medical device	
9.0	Biocompatibility and Animal performance study data for Investigational medical device (as applicable)	
10.0	Proposed Labelling information	
11.0	The agreement between the Sponsor and Principal investigator	
12.0	Appropriate Insurance certificate, if any	
13.0	Forms for reporting any adverse event and serious adverse event,	
14.0	Investigators Brochure as per Seventh Schedule of MDR-2017	
15.0	Clinical Investigational Plan as per Seventh Schedule of MDR-2017	
16.0	Case Report Form as per Seventh Schedule of MDR-2017	
17.0	Informed Consent Form as per Seventh Schedule of MDR-2017	
18.0	Undertaking by the Investigator as per Seventh Schedule of MDR-2017	
19.0	Published technical documents/literature (if any)	
20.0	Clinical Investigation data generated on the applied device (if any)	

21.0	Ethics Committee Approval letter	
22.0	Other information (if any)	

(F) Checklist for the grant of permission to conduct clinical performance evaluation on new In-vitro diagnostic medical devices under the Medical Devices Rules, 2017

Form Type:	**Application in Form MD-24**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.2**
2.0	Constitution of the Firm	
3.0	Device description including specification of raw material and finished product, data allowing identification of the device in question, proposed instruction for use, labels and regulatory status in other countries, if any	
4.0	In house performance evaluation data used to establish stability, specificity, sensitivity, repeatability and reproducibility	
5.0	Approval from an Ethics Committee	
6.0	Clinical performance evaluation plan	
7.0	Case Report Form (CRF)	
8.0	Undertaking by investigators	
9.0	An undertaking that the device in question conforms to the requirements of these rules, apart from aspects covered by evaluation and apart from those specifically itemised in the undertaking, and that every precaution has been taken to protect the health and safety of the patient, user and other persons	
10.0	Performance evaluation report from a laboratory designated under sub-rule (1) of rule 19	
11.0	Fee Challan	
12.0	Legal Form	

(G) Checklist for the grant of permission to import or manufacture for sale or for distribution of medical device which does not have predicate medical device under Medical Devices Rules, 2017

Form Type	Application in Form MD-26	
Section No.	**Checklist Name**	**Reference Section**
1.0	Cover Letter	**12.2**
2.0	Application (Form MD-26)	
3.0	Fees Challan	
4.0	Justification for the proposed class of device along with supporting documents	
5.0	Regulatory status of the device if approved by any National regulatory authority of the countries viz. United Kingdom, United States of America, Australia, Canada, Japan, etc. along with the notarized copy of approval letter.	
6.0	Design analysis data of the Investigational medical device	
6.1	Design input, design output and design control documents, etc. along with design verification and validation report	
6.2	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the Medical Device	
6.3	Device specification including the test parameters and its reference protocol to be carried out on the finished device along with the test report	
6.4	Mechanical test, electrical tests, Reliability tests, software verification & validation, any performance test, Ex vivo tests, etc.(wherever applicable)	
7.0	Stability Study data generated (if any)	
8.0	Risk Management Report on the applied medical device	
9.0	Biocompatibility and Animal performance study data for applied medical device (as applicable)	
10.0	Proposed Labelling information	
11.0	In case if the device contains drug, whether the drug is approved in India, If yes, then details of approval no. and company name and validity of approval etc.,	
12.0	If the drug is not approved in India, the following documents are required to be submitted: Data on animal toxicology, Reproduction studies, Teratogenic studies, Perinatal studies, Mutagenicity, Carcinogenicity, Chemical and Pharmaceutical information, etc.	
13.0	Clinical Investigation data including that carried out in India or other countries (if any)	

14.0	Details of countries where the investigational medical device is being sold/marketed from last two year (in case of import)	
15.0	Post marketing surveillance data of the investigational medical device if marketed in the countries viz. United Kingdom, United States of America, Australia, Canada, Japan, etc., from last two years.	
16.0	Details on evidence that there is no theoretical possibility of any difference in the behavior and performance in Indian population	
17.0	Undertaking in writing to conduct post marketing clinical investigation with the objective of safety and performance of such investigational medical device as per protocol approved by the Central Licensing Authority	
18.0	Notarized copy of overseas manufacturing site or establishment or plant registration, in the country of origin issued by the competent authority (in case of import)	
19.0	Constitution details of domestic manufacturer or authorized agent	
20.0	Other information (if any)	

(H) Checklist for the grant of permission to import or manufacture for sale or for distribution of In-vitro diagnostic medical device which does not have predicate medical device under Medical Devices Rules, 2017.

Form Type:	**Application in Form MD-28**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.3**
2.0	Power of Attorney (Original) authenticated in India either by a Magistrate of First Class or by Indian Embassy in the country of origin or by an equivalent authority through apostille along with under taking from the authorized agent as specified in Part I of Forth Schedule	
3.0	Constitution details of authorized agent	
4.0	Self-attested copy of valid Whole sale licence or manufacturing licence	
5.0	Regulatory Certificates	
5.1	Notarized and valid copy of overseas manufacturing site or establishment or plant registration, by whatever name called, in the country of origin issued by the competent authority	
5.2	Notarized and valid copy of Free Sale Certificate issued by the National Regulatory Authority or equivalent competent authority of the country of origin (if any)	
5.3	Notarized and valid copy of Free Sale Certificate issued by the National Regulatory Authority or equivalent competent authority of the any of the countries namely United States of America, Australia, Canada, Japan, and European Union Countries	
5.4	Copy of latest inspection or audit report carried out by Notified bodies or National Regulatory Authority or Competent Authority within last 3 years, if any	
5.5	Copy of NOC from Department of Animal Husbandry, Ministry of Agriculture, In Case of Veterinary IVD Kits	
5.6	Copy of NOC from Bhabha Atomic Research Centre (BARC), Mumbai, In case Radio Immuno Assay Kits	
6.0	Quality Management System certificate in respect of legal and actual manufacturing sites(s) (Wherever applicable)	
6.1	Notarized and valid copy of Quality Management System certificate (ISO 13485) certificate issued by the competent authority	
6.2	Notarized and valid copy of Production Quality Assurance certificate or Full quality Assurance certificate issued by the competent authority (if any)	
6.3	Notarized and valid copy of CE design certificate issued by the competent authority (if any)	
7.0	Undertaking signed by the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR-2017	
8.0	Site or plant master file as specified in Appendix I of Fourth Schedule of MDR-2017	
9.0	Device master file as specified in Appendix III of Fourth Schedule of MDR-2017	
10.0	Device data including, (whichever is applicable)	
10.1	Design input, Design output documents, Stability data	
10.2	Device specification including specificity, Sensitivity, Reproducibility and Reputability	
10.3	Product validation and Software validation relating to the function of the Device (if any)	

11.0	Risk Management Data	
12.0	Clinical Performance Evaluation data carried out in India and in other countries (if any)	
13.0	Regulatory status and Restriction on use in other countries (if any) where marketed or approved	
14.0	Essential principles checklist for demonstrating conformity to the essential principles of safety and performance of the in vitro medical device	
15.0	Product Insert	
16.0	Labelling and Pack Size	
17.0	Fee Challan	
18.0	Legal Form	
19.0	Copy of performance evaluation report issued by the central medical device testing laboratory or medical device testing laboratory registered under sub-rule (3) of rule 83 of MDR 2017 for three batches	
20.0	Stability	
20.1	Claimed Shelf life - stability study report for at least 3 lots including the protocol, acceptance criteria, testing intervals and conclusion	
20.2	In use stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion	
20.3	Shipping stability study report for 1 lot including the protocol, acceptance criteria, simulated conditions, conclusion and recommended shipping conditions	
21.0	Specific evaluation report, if done by any laboratory in India, showing the sensitivity and specificity of the in vitro diagnostic medical device(if available),	
22.0	Specimen batch test report for at least consecutive 3 batches showing specification of each testing parameter	
23.0	Correlation chart with respect to products list mentioned in MD-28 and FSC submitted	
24.0	Testing method preferably in Video (if available)	

(I) Checklist for the grant of manufacturing license for Class A (other than Class A (non-sterile and non-measuring) medical devices) Medical Devices under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-3**	
Section no.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.4.1**
2.0	Application Form	**12.4.1**
3.0	Fee Challan	**12.4.1**
4.0	Details of the constitution of the firm along with the relevant documents	**12.4.1**
5.0	The Establishment /Site ownership/Tenancy Agreement	**12.4.1**
6.0	**Plant Master file as per Appendix I of Fourth Schedule of MDR, 2017**	**12.4.1**
6.1	General Information of the facility	
6.2	Personnel- Organisation chart	
6.3	Personnel -Qualification, Experience and responsibilities	
6.4	Premises and Facilities	
6.5	Plant Layout of premise with indication of scale	
6.6	List of equipment and instruments used for manufacturing and testing	
6.7	Sanitation	
6.8	Production	
6.9	Quality Assurance	
6.10	Storage	
6.11	Documentation	
7	**Quality Management System Requirements**	**9.0**
7.1	Undertaking from the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR, 2017	
7.2	Quality Manual	
7.3	Control of Documents	
7.4	Control of Records	
7.5	Management Responsibility	
7.6	Resource management	
7.7	Control of production and service provision	
7.8	Internal Audit System	
7.9	Control of non-conforming product	
7.10	Corrective Action and Preventive Action	
7.11	Table the areas showing the environmental requirement for Medical Devices as per Annexure A of Fifth Schedule of MDR, 2017.	
8.0	Copy of approval obtained from DAHD in case of devices intended for veterinary use	
9.0	Any other additional documents (if any)	
10.0	Test License obtained in Form MD-13 for the applied devices (if any)	**9.0**

11.0	Copy of Permission in Form MD-27 (in case of Medical device which does not have Predicate medical device)	**12.3**
12.0	Device description including Intended use of the device, Material of construction (if applicable), Working principle, specification including variants and accessories etc.,	**12.4.2**
13.0	Labelling information (Labels, Instruction for Use, etc.)	**12.4.2**
14.0	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the applied device Medical Device	**12.4.2**

(J) Checklist for the grant of manufacturing licence for Class B Medical Devices under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-3**	
Section no.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.4.1**
2.0	Application Form	**12.4.1**
3.0	Fee Challan	**12.4.1**
4.0	Details of the constitution of the firm along with the relevant documents	**12.4.1**
5.0	The Establishment /Site ownership/Tenancy Agreement	**12.4.1**
6.0	**Plant Master file as per Appendix I of Fourth Schedule of MDR, 2017** *(wherever applicable)*	**12.4.1**
6.1	General Information of the facility	
6.2	Personnel- Organization chart	
6.3	Personnel -Qualification, Experience and responsibilities	
6.4	Premises and Facilities	
6.5	Plant Layout of premise with indication of scale	
6.6	List of equipment and instruments used for manufacturing and testing	
6.7	Sanitation	
6.8	Production	
6.9	Quality Assurance	
6.10	Storage	
6.11	Documentation	
7	**Quality Management System Requirements**	**9.0**
7.1	Undertaking from the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR, 2017	
7.2	Quality Manual	
7.3	Control of Documents	
7.4	Control of Records	
7.5	Management Responsibility	
7.6	Resource management	
7.7	Control of production and service provision	
7.8	Internal Audit System	
7.9	Control of non-conforming product	
7.10	Corrective Action and Preventive Action	
7.11	Table the areas showing the environmental requirement for Medical Devices as per Annexure A of Fifth Schedule of MDR, 2017.	
8.0	Copy of approval obtained from DAHD in case of devices intended for veterinary use	
9.0	Any other additional documents (if any)	

10.0	Test License obtained in Form MD-13 for the applied devices (if any)	**12.1**
11.0	Copy of Permission in Form MD-27 (in case of Medical device which does not have Predicate medical device)	**12.3**
12.0	**Device Master file in the line of Appendix II of Forth Schedule of Medical Devices Rules, 2017**	
12.1	Executive Summary	
12.2	Descriptive information of the device	
12.3	Justification for the Medical Device Grouping	
12.4	Product Specification, including variants and accessories	
12.5	Substantial equivalence with reference to the predicate device or previous generations of the device	
12.6	Labelling information (Labels, Instruction for Use, etc.)	
12.7	Device Design and Manufacturing Information	
12.8	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the Medical Device	
12.9	Risk analysis and control summary	
12.10	Verification and validation of the medical device	
12.11	Biocompatibility validation data (if applicable)	**12.4.2**
12.12	Medicinal substances data (if device contains Drug)	
12.13	Biological Safety (if applicable)	
12.14	Sterilization Validation data (if applicable)	
12.15	Software verification and validation (if software used)	
12.16	Animal studies – Preclinical data (if any)	
12.17	Stability study data (Real-time and Accelerated conditions)	
12.18	Clinical evidence (if any)	
12.19	Post Marketing Surveillance data (Vigilance reporting) duly authenticated by the manufacturer	
12.20	Batch Release Certificates or Certificate of Analysis for minimum 3 consecutive batches/ Software version release certificate/Software version release note/Software release report	

(K) Checklist for the grant of manufacturing licence for Class A and Class B In vitro Diagnostic Medical Devices under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-3**	
Section No.	**Checklist Name**	**Reference Section**
1.0	**Covering Letter**	**12.4.1**
2.0	**Constitution Details of Manufacturer**	**12.4.1**
3.0	**Site or plant master file as specified in Appendix I of Fourth Schedule of MDR 2017**	**12.4.1**
4.0	**Device master file as specified in Appendix III of Fourth Schedule of MDR 2017**	**12.4.2**
5.0	**Essential principles checklist for demonstrating conformity to the essential principles of safety and performance of the in vitro medical device**	**12.4.2**
6.0	**Undertaking signed by the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR 2017**	**9.0**
7.0	**Labelling and Pack Size**	**12.4.2**
8.0	**Regulatory Certificates**	**12.4.2**
8.1	Copy of latest inspection or audit report carried out by Notified bodies or National Regulatory Authority or Competent Authority within last 3 years, if any	**12.1**
8.2	Valid copy of Quality Management System certificate (ISO:13485) certificate issued by the competent authority (if any)	
8.3	Copy of NOC from Department of Animal Husbandry, Ministry of Agriculture, In Case of Veterinary IVD Kits (if available)	
8.4	copy of NOC from Bhabha Atomic Research Centre (BARC), Mumbai, In case Radio Immuno Assay Kits (if available)	
8.5	Copy of Test licence obtained for testing and generation of quality control data, if any	
8.6	Self-attested copy of valid Whole sale licence or manufacturing licence if any	
9.0	Specific evaluation report, if done by any laboratory in India, showing the sensitivity and specificity of the in vitro diagnostic medical device (For class B medical devices) (if available)	**12.4.2**
10.0	Specimen batch test report for at least consecutive 3 batches showing specification of each testing parameter (For class B medical devices)	
11.0	Copy of performance evaluation report issued by the central medical device testing laboratory or medical device testing laboratory registered under sub-rule (3) of rule 83 of MDR 2017 for three batches (For class B medical devices)	

12.0	A summary of analytical technology, relevant analytes and test procedure (For class A medical devices)	
13.0	Working principle and use of a novel technology (For class A medical devices) (if any)	**12.4.2**
14.0	**Stability, if applicable**	
14.1	Claimed Shelf life - stability study report for at least 3 lots including the protocol, acceptance criteria, testing intervals and conclusion.	
14.2	In use stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion,	
14.3	Shipping stability study report for 1 lot including the protocol, acceptance criteria, simulated conditions, conclusion and recommended shipping conditions	
15.0	**Product Insert**	**12.4.2**
16.0	**Fees Challan**	**12.4.1**
17.0	**Legal Form**	**12.4.1**

(L) Checklist for the grant of manufacturing license for Class C and Class D Medical Devices under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-7**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.4.1**
2.0	Application form	**12.4.1**
3.0	Fee Challan	**12.4.1**
4.0	Details of the constitution of the firm along with the relevant documents	**12.4.1**
5.0	The Establishment /Site ownership /Tenancy Agreement	**12.4.1**
6.0	**Plant Master file as per Appendix I of Fourth Schedule of MDR, 2017**	**12.4.1**
6.1	General Information of the facility	
6.2	Personnel- Organisation chart	
6.3	Personnel -Qualification, Experience and responsibilities	
6.4	Premises and Facilities	
6.5	Plant Layout of premise with indication of scale	
6.6	List of equipment and instruments used for manufacturing and testing	
6.7	Sanitation	
6.8	Production	
6.9	Quality Assurance	
6.10.	Storage	
6.11	Documentation	
7.0	**Quality Management System Requirements**	**9.0**
7.1	Undertaking from the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR, 2017	
7.2	Quality Manual	
7.3	Control of Documents	
7.4	Control of Records	
7.5	Management Responsibility	
7.6	Resource management	
7.7	Control of production and service provision	
7.8	Internal Audit System	
7.9	Control of nonconforming product	
7.10	Corrective Action and Preventive Action	
7.11	Table the areas showing the environmental requirement for Medical Devices as per Annexure A of Fifth Schedule of MDR, 2017.	
8.0	**Device Master file in the line of Appendix II of Fourth Schedule of MDR, 2017**	**12.4.2**
8.1	Executive Summary	

8.2	Descriptive information of the device	
8.3	Justification for the Medical Device Grouping	
8.4	Product Specification, including variants and accessories	
8.5	Substantial equivalence with reference to the predicate device or previous generations of the device	
8.6	Labelling information (Labels, Instruction for Use, etc)	
8.7	Device Design and Manufacturing Information	
8.8	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the Medical Device	
8.9	Risk analysis and control summary	
8.1	Verification and validation of the medical device	
8.11	Biocompatibility validation data (if applicable)	
8.12	Medicinal substances data (if device contains Drug)	
8.13	Biological Safety (if applicable)	
8.14	Sterilization Validation data (if applicable)	
8.15	Software verification and validation (if software used)	
8.16	Animal studies – Preclinical data (if any)	
8.17	Stability study data (Real-time and Accelerated conditions)	
8.18	Clinical evidence (if any)	
8.19	Post Marketing Surveillance data (Vigilance reporting)	
8.20	Batch Release Certificates or Certificate of Analysis for minimum 3 consecutive batches/ Software version release certificate/Software version release note/Software release report	
9.0	Copy of approval obtained from DAHD in case of devices intended for veterinary use	
10.0	Any other additional documents (if any)	
11.0	Test License obtained in Form MD-13 for the applied devices (if any)	**12.1**
12.0	Copy of Permission in Form MD-27 (in case of Medical device which does not have Predicate medical device)	**12.3**

(M) Checklist for the grant of manufacturing license for Class C and Class D In-vitro diagnostic under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-7**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.4.1**
2.0	Constitution Details of Manufacturer,	**12.4.1**
3.0	**Site or plant master file as specified in Appendix I of Fourth Schedule of MDR 2017**	
3.1	Part–1 Plant Layout of premise with indication of scale	
3.2	Part-2 Organization chart showing the arrangements for key personnel	**12.4.1**
3.3	Part-3 Qualification, Experience and responsibilities of key Technical Persons	
3.4	Part-4 List of Equipment and Instruments	
3.5	Part-5 Contract Activities if any	
4.0	**Quality Management System**	**9.0**
4.1	Part – 1 Quality Management System as per Fifth Schedule of Medical devices Rules, 2017	
4.2	Part – 2 Quality Manual	
4.3	Part – 3 Quality Policy	
4.4	Part – 4 Control of Documents	
4.5	Part – 5 Control of Records	
4.6	Part – 6 Management Responsibility	
4.7	Part – 7 Internal Audit System	
4.8	Part – 8 Preventive and Corrective Action	
4.9	Part – 9 Procedure for identifying training needs and ensure that all persons are trained to adequately perform their assigned responsibilities.	
4.10	Part – 10 Table the areas showing the environmental requirement for Medical Devices as per Annexure A of Fifth Schedule of Medical devices Rules, 2017	
5.0	Undertaking signed by the manufacturer stating that the manufacturing site is in compliance with the provisions of the Fifth Schedule of MDR 2017	**9.0**
6.0	**Regulatory certificates**	**9.0, 12.1**

6.1	Copy of latest inspection or audit report carried out by Notified bodies or National Regulatory Authority or Competent Authority within last 3 years	
6.2	Copy of NOC from Department of Animal Husbandry, Ministry of Agriculture, In Case of Veterinary IVD Kits (if available)	
6.3	Copy of NOC from Bhabha Atomic Research Centre (BARC), Mumbai, In case Radio Immuno Assay Kits (if available)	
6.4	Valid copy of Quality Management System certificate (ISO:13485) certificate issued by the competent authority .(if any)	
6.5	Copy of Test licence obtained for testing and generation of quality control data, if any	
6.6	Self attested copy of valid Whole sale licence or manufacturing licence, if any	
7.0	**Device Master File for In Vitro Diagnostic Medical Devices as per Appendix–III of Part III of Fourth Schedule of Medical devices Rules, 2017**	
7.1	Part – 1 Executive Summary	
7.2	Part-2 Regulatory status of the similar device in India (approved or new in vitro diagnostic medical device).	
7.3	Part-3 Description and specification, including variants and accessories of the in vitro diagnostic medical device	
7.4	Part – 4 Essential principles checklist for demonstrating conformity to the essential principles of safety and performance of the in vitro medical device	
7.5	Part – 5 Risk analysis and control summary	
7.6	Part–6 Device Design and Manufacturing Information	
7.7	Part-7 Product validation and verification	
7.8	Part-8 Analytical studies, Specimen type, Analytical performance characteristics, Analytical sensitivity, Analytical Specificity, Metrological traceability of calibrator and control material values, Measuring range of assay, Definition of assay	**12.4.2**
7.9	Part – 9 Claimed Shelf life - stability study Report for at least 3 lots including the protocol, acceptance criteria, testing intervals and conclusion.	
7.10	Part-10 In use stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion for	
7.11	Part-11 Shipping stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion for Part-11Shippingstabilitystudyreportfor1 lot including the protocol, acceptance criteria, testing intervals and conclusion for	
7.12	Part-12 Clinical Evidence	
7.13	Part-13 Product Insert, Pack size, Label	
7.14	Part-14 Specimen batch test report format least consecutive 3 batches showing specification of each testing parameter	

7.15	Part-15 Specific evaluation report, if done by any laboratory in India, showing the sensitivity and specificity of the invitro diagnostic medical device	
7.16	Part-16 Copy of performance evaluation report issued by the central medical device testing laboratory or medical device testing Laboratory registered under sub-rule(3)of rule 83 of MDR 2017 for three batches	
7.17	Part-17 Post Market Surveillance Data	
7.18	Part-18-Others	
8.0	**Fee Challan**	**12.4.1**
9.0	**Legal Form**	**12.4.1**

(N) Checklist for the grant of Import license for Medical Device under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-14**	
Section no.	**Checklist Name**	**Reference Section**
1	Covering Letter	**12.4.1**
2	Application (Form MD-14)	**12.4.1**
3	Fee Challan	**12.4.1**
4	Power of Attorney along with undertaking from the authorized agent as per Part I of Fourth Schedule of MDR, 2017 (duly authenticated in India either by a Magistrate of First Class or by Indian Embassy in the country of origin or by an equivalent authority through apostille)	**12.4.1**
5	Copy of Whole Sale licence / Manufacturing licence/ Registration Certificate in Form MD-42 of the Authorized agent	**12.4.1**
6	Constitution details of the authorized agent	**12.4.1**
7	**Regulatory Certificate**	**12.4.1**
7.1	Copy of Free Sale Certificate/Marketing Authorization of the product issued by the National Regulatory Authority of country of origin (if any) (duly notarized)	
7.2	Copy of Free Sale Certificate Marketing Authorization of the product issued from National Regulatory Authority of any of the following countries viz., USA, UK, EU, Canada, Japan or Australia (duly notarized)	
7.3	Copy of overseas manufacturing site / establishment / plant registration, by whatever name called, in the country of origin issued by the competent authority (duly notarized)	
7.4	Copy of latest inspection or audit report carried out by the Competent Authority within last 3 years, if any.	
8	**Quality Certificate in respect of the actual manufacturing site, as applicable**	**9.0**
8.1	Copy of Certificate supporting Quality Management System (duly notarized)	
8.2	Copy of Full Quality Assurance Certificate/ CE type examination Certificate/ CE product quality assurance certificate, CE design Certificate, etc. as applicable (duly notarized)	
8.3	Declaration of conformity issued by the manufacturer	
9	Plant Master file from the Manufacturer as per Appendix I of Fourth Schedule of Medical Devices Rules, 2017	**12.4.1**
10	**Device Master file from the Manufacturer as per Appendix II of Fourth Schedule of Medical Devices Rules, 2017**	**12.4.2**
10.1	Executive Summary	

10.2	Descriptive information of the device	
10.3	Justification for the Medical Device Grouping	
10.4	Product Specification, including variants, accessories, etc.	
10.5	Substantial equivalence with reference to the predicate device or previous generations of the device	
10.6	Labelling information (Labels, Instruction for Use, etc.)	
10.7	Device Design and Manufacturing Information	
10.8	Essential Principles checklist for demonstrating conformity to the Safety and Performance of the Medical Device	
10.9	Risk analysis and control summary	
10.10	Verification and validation of the medical device, if applicable	
10.11	Biocompatibility validation data (if applicable)	
10.12	Medicinal substances data (if device contains Drug)	
10.13	Biological Safety (TSE/BSE), if applicable	
10.14	Sterilization Validation data (if applicable)	
10.15	Software verification and validation	
10.16	Animal studies – Preclinical data (if any)	
10.17	Stability study data (Real-time and Accelerated conditions) for the claimed shelf life (if applicable)	
10.18	Clinical evidence (if any)	
10.19	Post Marketing Surveillance data (Vigilance reporting)	
10.20	Batch Release Certificates or Certificate of Analysis for minimum 3 consecutive batches/ Software version release certificate/Software version release note/Software release Report *(whichever applicable)*	
11	Any other additional documents	
12	Copy of Permission in Form MD-27 (in case of Investigational Medical Device)	**12.3**

(O) Checklist for the grant of Import license for In-vitro diagnostic under Medical Devices Rules, 2017

Form Type:	**Application in Form MD-14**	
Section No.	**Checklist Name**	**Reference Section**
1.0	Covering Letter	**12.4.1**
2.0	Power of Attorney (Original) authenticated in India either by a Magistrate of First Class or by Indian Embassy in the country of origin or by an equivalent authority through apostille along with undertaking from the authorized agent as specified in Part I of Fourth Schedule	**12.4.1**
3.0	Self-attested copy of valid Wholesale licence or manufacturing licence, if any	**12.4.1**
4.0	**Regulatory Certificates along with previous import license (if any)**	**12.4.1**
4.1	Notarized copy of overseas manufacturing Site or establishment or plant registration, by whatever name called, in the country of origin issued by the competent authority	
4.2	Notarized and valid copy of Free Sale Certificate issued by the National Regulatory Authority or equivalent competent authority of the country of origin (if any)	
4.3	Notarized and valid copy of Free Sale Certificate issued by the National Regulatory Authority or equivalent competent authority of the any of the countries namely United States of America, Australia, Canada, Japan, and European Union Countries	
4.4	Copy of latest inspection or audit report Carried out by Notified bodies or National Regulatory Authority or Competent Authority within last 3 years, if any.	
4.5	Copy of NOC from Department of Animal Husbandry, Ministry of Agriculture, In Case of Veterinary IVD Kits,	
4.6	Copy of NOC from Bhabha Atomic Research Centre (BARC), Mumbai, In case Radio Immuno Assay Kits	
5.0	**Quality Management System certificate in respect of legal and actual manufacturing sites(s) (Wherever applicable)**	**9.0**
5.1	Notarized and valid copy of Quality Management System certificate (ISO13485) certificate issued by the competent authority,	
5.2	Notarized and valid copy of Production Quality Assurance certificate or Full quality Assurance certificate issued by the competent authority.(if any)	
5.3	Notarized and valid copy of CE design certificate issued by the competent authority.(if any),	
6.0	**Site or plant master file as specified in Appendix I of Fourth Schedule of MDR-2017**	**12.4.1**
7.0	**Device Master File for In Vitro Diagnostic Medical Devices as per Appendix–III of Part III of Fourth Schedule of Medical devices Rules, 2017**	**12.4.2**

7.1	Part-1 Executive Summary, Description and specification, including variants and accessories and Design & manufacturing information of the in-vitro diagnostic medical device	
7.2	Part-2 Regulatory status of the similar device in India (approved or new in vitro diagnostic medical device).	
7.3	Part–3 Essential principles checklist	
7.4	Part–4 Risk analysis and control summary, Product validation and verification and Clinical Evidences	
7.5	Part-5 Analytical studies, Specimen type, Analytical performance characteristics, Analytical sensitivity, Analytical Specificity, Metrological traceability of calibrator and control material values, Measuring range of assay, Definition of assay	
7.6	Part – 6 Claimed Shelf life – stability study report for at least 3 lots including the protocol, acceptance criteria, testing intervals and conclusion, In use stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion & Shipping stability study report for 1 lot including the protocol, acceptance criteria, testing intervals and conclusion.	
7.7	Part-7 Product Insert, Pack size, Label	
7.8	Part-8 Specimen batch test report for at least consecutive 3 batches showing specification of each testing parameter	
7.9	Part-9 Copy of performance evaluation Report issued by the central medical device testing laboratory o r medical device testing laboratory registered under sub-rule (3) of rule 83 of MDR 2017 for three batches/ Specific evaluation report, if done by any laboratory in India, showing the sensitivity and specificity of the in-vitro diagnostic medical device	
7.10	Part-10 Post Market Surveillance Data and any other information of the product	
8.0	**Correlation chart with respect to products list mentioned in MD-14 and FSC submitted**	
9.0	**Testing method preferably in Video (if available)**	
10.0	**Fee Challan**	**12.4.1**
11.0	**Legal Form**	**12.4.1**