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| Final Document |
| IMDRF/GRRP WG/N71  |
| Medical Device Regulatory Review Report: Guidance Regarding Information to be Included  |
| Authoring Group |
| Good Regulatory Review Practices |

Preface

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**Andrzej Rys, IMDRF Chair**

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# Introduction

This is one document in a collection of documents produced by the International Medical Device Regulators Forum (IMDRF) intended to improve the efficiency and effectiveness of the regulatory review[[1]](#footnote-2) process for medical devices.

Two documents, IMDRF GRRP WG/N40 (“*Competence, Training, and Conduct Requirements for Regulatory Reviewers*”) and IMDRF GRRP WG/N59 (“*Requirements for Medical Device Conformity Assessment Bodies for Regulatory Authority Recogn**ition*”) are complementary documents. These two documents N40 and N59 are focused on requirements for Conformity Assessment Bodies (CABs) conducting regulatory review(s) of medical devices and IVD medical devices and individuals performing regulatory reviews and other related functions under their respective medical device legislation, regulations, and procedures required in their regulatory jurisdiction.

Three additional documents, IMDRF GRRP WG/N61 (“*Regulatory Authority Assessment Method for Recognition and Surveillance of Conformity Assessment Bodies Conducting Medical Device Regulatory Reviews*”), IMDRF GRRP WG/N63 (“*Competence and Training Requirements for Regulatory Authority Assessors of Conformity Assessment Bodies Conducting Medical Device Regulatory Reviews*”), and IMDRF GRRP WG/N66 (“*Assessment and Decision Process for the Recognition of a Conformity Assessment Body Conducting Medical Device Regulatory Reviews*”) are complementary documents. These three documents N61, N63, and N66 are focused on how RAs will evaluate or “assess” a CAB’s compliance to the requirements in the IMDRF GRRP WG/N59 and N40 documents.

In addition, IMDRF GRRP WG/N47 (“*Essential Principles of Safety and Performance of Medical Devices and IVD Medical* Devices”) and IMDRF GRRP WG/N52 (“*Principles of Labeling for Medical Devices and IVD Medical Devices*”) are complementary documents. These two documents N47 and N52 are focused on the fundamental design, manufacturing, and labeling requirements for medical devices that, when met, provide assurance the device is safe and performs as intended, offers significant benefits to, among others, manufacturers, users, patients/consumers, and RAs.

This document, IMDRF/GRRP WG/N71, provides guidance regarding creation of a medical device regulatory review report. The regulatory review report serves as a written record of the CAB’s determination of the extent of fulfillment of specified requirements. It enables the CAB to capture in a consistent manner the evidence of a manufacturer’s conformity with the criteria for the regulatory review and will facilitate the exchange of information between RAs. This document expands upon section 7.5.2 of IMDRF/GRRP WG/N59 by articulating exactly the type of information a regulatory review report should include to address the requirements of section 7.7 of N59.

This collection of IMDRF GRRP documents will provide the fundamental building blocks by providing a common set of requirements to be utilized by the RAs for the recognition and monitoring of entities that perform regulatory reviews and other related functions. It should be noted that in some jurisdictions the recognition process is called designation, notification, registration, or accreditation.

IMDRF developed these GRRP documents to encourage and support global convergence of regulatory systems, where possible, seeking to strike a balance between the responsibilities of RAs to safeguard the health of their citizens as well as their obligations to avoid placing unnecessary burdens upon medical device CABs or the regulated industry. IMDRF RAs may add additional requirements beyond this document when their legislation requires such additions.

To prevent confusion between regulatory review activities performed by a CAB and the activities performed by medical device Regulatory Authority Assessors for CAB recognition and surveillance, in this document, the latter are designated as “assessments.”

# Scope

The scope of this guidance document is limited to the information participating IMDRF Regulatory Authorities require in medical device regulatory review reports, the format of reports, and the information necessary for participating IMDRF RAs to effectively use the regulatory review reports in accordance with their legislation and regulations. Additional requirements for CAB certification decisions are included in IMDRF/GRRP WG/N59.

This document applies to all medical devices except IVD medical devices. This document does not apply specifically to products that do not meet the definition of a medical device in IMDRF/GRRP WG/N47 (“*Essential Principles of Safety and Performance of Medical Devices and IVD Medical Devices*”). However, the contents and approach within this guidance may be relevant, as determined appropriate by the applicable RA, to documenting the evaluation of a product that is not a medical device.

This document is intended to identify the type of information a CAB would be expected to review during evaluation of a regulatory submission. This document does not apply specifically to RAs. Some RAs, however, may choose to use elements of this document in reviewing regulatory submissions themselves.

This document is intended to be used in evaluating a regulatory submission consistent with other IMDRF guidance, namely, IMDRF/RPS WG/N9. The headings in this document mirror those of IMDRF/RPS WG/N9 for consistency between information expected to be included in the regulatory submission and documentation of the CAB’s review of that submission.

IMDRF/RPS WG/N9 is primarily organized to accommodate a submission package structured with nested folders. The order of content in IMDRF/RPS WG/N9 is not intended to convey or describe the order in which content would be assembled. Similarly, the order of content in this document is not intended to convey or describe the order in which a regulatory submission would be reviewed. For example, a regulatory review report should include an evaluation of the device classification and identification information (Chapter 1.01(B)), but this evaluation requires the review of information in subsequent Chapters: Device Description (Chapter 2.04) and the Indications for Use and/or Intended Use, and Contraindications (Chapter 2.05). If the regulatory review report follows a different structure, then the report should ensure that at least the same content has been covered in the evaluation

IMDRF/RPS WG/N9 is comprehensive in scope in that it includes both common (IMDRF) and regional content. As a consequence, not all headings in IMDRF/RPS WG/N9 are applicable for all submission types and/or IMDRF jurisdictions. Similarly, not all headings of this document are relevant or reviewed to the same extent for all submission types, all device types, and/or all IMDRF jurisdictions. The relevance of each chapter and the extent of review depends on the jurisdiction(s) for which the regulatory review is being conducted.

IMDRF/RPS WG/N9 provides headings to distinguish between IMDRF and regional content. This document does not make that distinction. Instead, when developing a regulatory review report, CABs are required to review IMDRF/RPS WG/N9 and materials published by individual RAs to determine which chapters in this document are relevant based on the specific submission type, device type, and jurisdiction for which the review is being conducted. For example, Essential Principle 6.5.1 describes an essential principle of safety and performance “where a medical device incorporates, as an integral part, a substance which, if used separately may be considered to be a medicinal product/drug as defined in the relevant legislation that applies in that RA and which is liable to act upon the body with action ancillary to that of the medical device.”

If the regulatory review report is being conducted for multiple RAs, the report should include all information relevant for all RAs for which the review is being conducted. The report should clearly indicate which elements apply to which jurisdiction.

This guidance is not intended to describe the format or contents of documentation for surveillance activities conducted by a CAB (e.g., periodic sampling). However, individual CABs may find its contents useful for such reviews if consistent with the regulatory requirements of a given jurisdiction.

This guidance does not preclude any requirements for CABs to conduct and document their own assessments. Given variability in definitions and review practices across jurisdictions, this document does not establish a regulatory pathway or describe exactly what information should be reviewed for these types of products. CABs should contact an RA if there are questions about what contents are required for a specific submission.

In addition, submissions requesting approval to conduct clinical trials are out of scope for this document; refer to each specific regulator for guidance regarding approval to conduct clinical trials.

# References

* IMDRF GRRP WG/N40:2017 *Competence, Training, and Conduct Requirements for Regulatory Reviewers*
* IMDRF GRRP WG/N47:2018 *Essential Principles of Safety and Performance of Medical Devices and IVD Medical Devices*
* IMDRF Standards WG/N51:2018 *Optimizing Standards for Regulatory Use*
* IMDRF GRRP WG/N52:2019 *Principles of Labeling for Medical Devices and IVD Medical Devices*
* IMDRF GRRP WG/N59: 2020 *Requirements for Medical Device Conformity Assessment Bodies for Regulatory Authority Recognition*
* IMDRF GRRP WG/N61: 2020 *Regulatory Authority Assessment Method for Recognition and Surveillance of Conformity Assessment Bodies Conducting Medical Device Regulatory Reviews*
* IMDRF GRRP WG/N63: 2020 *Competence and Training Requirements for Regulatory Authority Assessors of Conformity Assessment Bodies Conducting Medical Device Regulatory Reviews*
* IMDRF GRRP WG/N66: 2021 *Assessment and Decision Process for the Recognition of a Conformity Assessment Body Conducting Medical Device Regulatory Reviews*
* IMDRF/RPS WG/N9 FINAL:2019 (Edition 3) *Non-In Vitro Diagnostic Device Market Authorization Table of Contents (nlVDMAToC)*
* ISO/IEC 17065:2012 *Conformity assessment — Requirements for bodies certifying products, processes, and services*
* GHTF/SG1/N055:2009 *Definition of the Terms Manufacturer, Authorized Representative, Distributor, and Importer*

# Definitions

All definitions from referenced IMDRF documents apply to this document, plus the following (the underlined terms are previously defined):

*Regulatory Review Report*: the record developed by a CAB to document a regulatory review.

# Medical Device Regulatory Review Report Contents

Guidance regarding content to include in the medical device regulatory review report are provided below. The headings mirror those of IMDRF/RPS WG/N9 for consistency between information included in the regulatory submission and documentation of the CAB’s review of that submission. The heading “Chapter 0” has been added for information not included in Chapters 1-6 of IMDRF/RPS WG/N9; that is, for information relevant to the medical device regulatory review report, but not expected to be included in the regulatory submission itself. Please note the following, which apply to all headings of the report:

* Documenting the CAB’s Evaluation

For many headings, the regulatory review report should include not only a summary of the information provided by the manufacturer regarding the topic, but also an assessment by the CAB of the acceptability of this information.

This evaluation should:

* + Include references to the relevant (i.e., key) evidence submitted by the manufacturer that has been considered.
	+ Document the CAB’s final opinion on all information provided by the manufacturer related to the given topic. That is, any information provided by the manufacturer either within the initial submission or in response to interactions with the CAB should be included in the evaluation.
	+ Provide a rationale for why the totality of information provided is or is not acceptable with respect to the following questions.
		- Did the provided information demonstrate conformity with the applicable Essential Principles?
		- Were conclusions supported by the results/information presented?
		- Are all issues (e.g., questions/concerns identified during the review that required interaction/communication with the manufacturer) addressed?
		- Is there any discrepancy within the manufacturer’s conclusions?
	+ Describe any nonconformities remaining at the end of review that prevent a positive recommendation from the CAB.
	+ Note any follow up items that the manufacturer has committed to conduct (e.g., product stability studies).

This evaluation should **not** include a detailed listing and history of all interactions with the manufacturer on a specific topic. Questions sent to the manufacturer by the CAB and responses (including data and corrective action plan(s)) provided by the manufacturer to address the CAB’s concerns should be either provided as an appendix of the report or maintained as a separate resource available to support the conclusions of the regulatory review. If interactions are maintained as a separate resource, the regulatory review report should include clear reference as to where the information can be found.

* Documenting When Topics Are Related to and Impact One Another

All of the information provided in a regulatory submission is inter-related and should be reviewed as such. Conclusions drawn when reviewing the information under one heading may impact the review and conclusions drawn when reviewing the information under other headings. For example, concerns with risk management may impact the adequacy of evidence (clinical and nonclinical) provided or the appropriateness of the proposed indications for use and labeling. The report should clearly indicate where one topic impacts another topic. The report should describe any linkage between the contents under different headings and the impact of conclusions drawn for one topic on the review of related topics. For example, the report should indicate how the evaluation of testing and labeling was informed by the extent to which testing and labeling were used as mitigations for specific risks.

* Determining Review Expectations

Review expectations should be in line with the expectations of the jurisdiction for which the regulatory review is being conducted. Review expectations may depend on a number of factors including the following.

* + Risk classification of device type

Example: a CAB may be expected to review the labeling components of a higher risk device in more detail compared to the review of the labeling components of a lower risk device.

* + Risks identified for the specific device

Example: differences in device technology may require differences in review expectations even for devices with the same indications for use.

* + Novelty and complexity of the specific device

Example: review of novel and complex devices may include additional considerations of new features, changes to use conditions or procedures, and new technology.

* + Conformity assessment procedure applied by the manufacturer

Example: different review expectations may be relevant based on the extent to which a manufacturer relies on conformity to standards or different types of evidence

* + IMDRF jurisdiction for which the regulatory review is being conducted

Example: one RA may expect a review of all general quality management system procedures for high risk devices, while another may accept a specific type of certificate to indicate sufficient quality management system procedures.

Prior to developing a regulatory review report, CABs are required to review materials published by individual RAs regarding the applicable review expectations (e.g., guidance and recognized standards). CABs should contact an RA if there are questions about review expectations during the review.

* Use of “N/A”

“N/A” should not be used in the regulatory review report without an accompanying rationale. For example, a given heading may be “N/A” based on the type of device (e.g., a device that does not include software) or based on the jurisdictions for which the review is being conducted (e.g., detailed quality management procedures may not be required for 510(k) submissions to the U.S. FDA). In these cases, “N/A” may be included for a heading, but a rationale should also be provided as to why the heading is not applicable.

* Screening Review

Section 7.3 of IMDRF/GRRP WG/N59 indicates that a CAB performs a screening review prior to evaluating the regulatory submission. This guidance does not differentiate between a screening review and an evaluation. Instead, this guidance includes all information a regulatory authority would expect to see from a CAB after a complete assessment of the regulatory submission (including both screening and evaluation).

* Accreditation of Testing Laboratories

In some jurisdictions, the accreditation of the testing laboratory conducting the non-clinical study impacts the review of the study methods and results. Testing laboratory accreditation should be considered as appropriate for each jurisdiction.

## Chapter 0 Regulatory Review

### Information about the Conformity Assessment Body

The report should include:

* the name of the CAB
* full address
* contact information
* any identification numbers relevant to the CAB performing the regulatory review
* aspects of the CAB’s scope of recognition that are relevant to the review conducted. The report should specifically confirm the CAB’s scope of recognition at the time of the regulatory review was consistent with the scope of the review conducted.

### Scope of Regulatory Review

The report should include a summary statement that specifically indicates the scope of regulatory review consistent with section 7.7.3(a) of IMDRF/GRRP WG/N59. At a minimum, the summary statement should include the device name, device type, manufacturer name, and jurisdictions for which the regulatory review is being conducted as well as indication of whether the regulatory submission is an initial submission or includes changes to a model of the device for which a regulatory review has already been conducted. If the regulatory submission includes many different models or configurations, the report should include a discussion as to whether the submission and its review outcome apply to some or all those included devices. For example, a clinical monitoring system might include a variety of features and configurations with differing levels of complexity and risk. The report should indicate with supporting rationale, which features and configurations are within the scope of the regulatory review.

Information relevant to this heading of the report may be found in the following chapters of IMDRF/RPS WG/N9:

* 1.01 (“Cover Letter”)
* 1.04 (“Application Form/Administrative Information”)
* 1.05 (“Listing of Device(s)”)
* 2.02 (“General Summary of Submission”)

### Relevant Dates

The report should include the dates the regulatory submission was received by the CAB and the date the CAB completed their review.

### Recommendation

The report should include a recommendation as to whether, based on the review of provided documentation, the device conforms or does not conform to all applicable Essential Principles and other regulatory requirements. Section 7.7.3(b) of IMDRF/GRRP WG/N59, the recommendation should include clear identification of the subject medical device and its use. If certification is recommended and to be limited to a certain period of time, the report should recommend a validity or recertification period.

### Summary of Review

The report should include a high-level summary of the review including device name, indications for use, and highlights of the review. A detailed listing of the history of interactions with the manufacturer should not be included in the summary of review. As indicated in the introductory text of section 5 “Medical Device Regulatory Review Report Contents,” interactions between the manufacturer and the CAB should be either provided as an appendix to the report or maintained as a separate resource available to support the conclusions of the regulatory review. The report should also include, as indicated in section 7.7.3(c) of IMDRF/GRRP WG/N59, a discussion of the review criteria used to assess the regulatory submission.

Comment should be provided regarding whether the Summary and Certifications for Premarket Submissions provided by the manufacturer are accurate and acceptable based on the requirements in Chapter 2.03 of IMDRF/RPS WG/N9.

### Review Team

The report should include a listing of the names, titles, roles, and qualifications of each individual who reviewed the file or provided signatory authority.

### External Consultations

The report should identify any consultations obtained during regulatory review from external resources, as defined in Section 6.2 of IMDRF/GRRP WG/N59 and Section 6.2.4 of IMDRF/GRRP WG/N61. The report should clearly indicate the rationale for obtaining external consultation, the expertise of the external consultant, the information provided to and received from the external consultant, and how the external consultation impacted the overall regulatory review. For example, in the course of reviewing a product that incorporates both medical device component(s) and a medicinal/drug substance, a CAB may choose to obtain external consultation regarding the drug/medicinal substance in order to inform their review of the medical device component(s).

## Chapter 1 Regional Administrative

### Cover Letter

#### Submission Type and Number

The report should include relevant details from the cover letter including the type of regulatory submission submitted by the manufacturer. Refer to each specific regulator for applicable submission types.

If available, the report should also include the submission number for each identifying jurisdiction. This information may not be available at the time of the CAB review given that, in some jurisdictions, the CAB review precedes the review by the RA and, therefore, assignment of a submission number by the RA. In these cases, the identifying number, if any, assigned by the CAB itself for tracking purposes should be provided for reference.

Information relevant to this heading of the report may also be found in Chapter 1.04 (“Application Form/Administrative Information”) of IMDRF/RPS WG/N9.

#### Device Classification and Identification Information

The report should include the device classification and any associated device identifiers (e.g., unique device identifiers (UDI)) required for the applicable jurisdictions. Comment should be provided regarding the degree to which the information provided supports the proposed classification as indicated in section 7.4.2 of IMDRF/GRRP WG/N59.

Information relevant to this heading of the report may also be found in Chapter 1.04 (“Application Form/Administrative Information”) of IMDRF/RPS WG/N9.

#### Applicable Jurisdiction(s)

The report should include the jurisdiction(s) for which the review is being conducted.

### Submission Table of Contents

The report does not need to include the Table of Contents provided in the regulatory submission.

### List of Terms/Acronyms

The report does not need to include the list of terms/acronyms provided in the regulatory submission. However, the first time an acronym or term is used in the report, the definition should be provided.

### Application Form/Administrative Information

The report should include the name, full address, any identification numbers, and primary contact information for the applicant, manufacturer, authorized representative, etc. as required by the jurisdictions for which the regulatory review is being conducted.

### Listing of Devices

The report should list all devices included in the regulatory submission and subject of the review.

### Quality Management System, Full Quality System or Other Regulatory Certificates

The report should indicate whether the applicable quality management system, full quality system, or other regulatory certificates were provided and acceptable based on the jurisdictions for which the regulatory review is being conducted.

This heading of the report should also list the name(s), location(s), and scope(s) or role(s) of each manufacturing facility and/or supplier for the medical device, using the relevant information provided in the regulatory submission (i.e., Chapter 6 of IMDRF/RPS WG/N9). The report should also include a description of any relationship between facilities when there is more than one involved in the manufacturing process. Note that a manufacturing facility includes locations with responsibility for design and/or manufacture (as indicated in GHTF/SG1/N055:2009 (“*Definition of the Terms Manufacturer, Authorized Representative, Distributor, and Importer”*)).

### Free Sale Certificate/Certificate of Marketing Authorization

The report should indicate whether and what free sale certificates/certificates of marketing authorization are available and from which regulatory jurisdiction(s).

### Expedited Review Documentation

The report should indicate whether expedited review has been requested and/or granted by the RA and what associated supporting documentation was included.

### User Fees

User fee documentation under this heading refers to user fees paid to the RA, not the CAB. Therefore, this review of information under this heading is conducted by the RA, not by the CAB.

### Pre-Submission Correspondence and Previous Regulator Interactions

The report should include how previous regulator interactions informed the review of the regulatory submission. This includes both a summary of previous interactions and the impact on review considerations (e.g., if specific testing is expected for a particular jurisdiction based on feedback previously provided by that RA).

### Acceptance for Review Checklist

The report should indicate what acceptance for review checklist information was provided in the regulatory submission, whether the information was acceptable, and how the information impacted the review conducted.

### Statements/Certifications/Declarations of Conformity

The report should indicate what statements, certifications, declarations of conformity were provided in the regulatory submission, whether the information was acceptable, and how the information impacted the review conducted.

### Letters of Reference

The report should include reference to any applications related to the subject regulatory submission (e.g., regional document references (e.g., Master Files) or predicate device applications). Any evaluation in the remainder of the report should clearly indicate if comments and information are provided relative to the regulatory submission or a referenced application and, if so, which referenced application. In addition, review of any referenced application is limited to the scope of the letter of reference provided by the manufacturer.

### Letters of Authorization

The report should indicate whether the applicable letters of authorization were provided based on the jurisdictions for which the regulatory review is being conducted.

###  Other Regional Administrative Information

The report should include an evaluation of any other relevant administrative information provided in the regulatory submission.

## Chapter 2 Submission Context

### Chapter Table of Contents

The report does not need to include the Chapter Table of Contents provided in the regulatory submission.

### General Summary of Submission

Information from this chapter of the regulatory submission, along with analysis of its acceptability and review conclusions, should be incorporated into the Scope and Summary of Regulatory Review in Chapter 0.

### Summary and Certifications for Premarket Submissions

The report should indicate whether the applicable summary and certifications for premarket submissions were provided and acceptable based on the jurisdictions for which the regulatory review is being conducted.

### Device Description

The report should include a summary description of the device, its principles of operation, packaging, history of development, and reference and comparison to similar and/or previous generations of device.

### Indications for Use, Intended Use, and Contraindications

The report should include the indications for use, intended use, intended use environment, intended patient population, intended users, and any contraindications for use. As indicated in section 7.4.3 of IMDRF/GRRP WG/N59, the CAB should ensure that the regulatory submission supports the proposed intended use of the medical device.

### Global Market History

The report should include the global market history of the device including where the device is currently marketed and the experience in those region(s) (e.g., any incidents and/or recalls). Distinction should be made between information provided by the manufacturer and obtained by CAB reviewer(s) during research of relevant regulator databases. Relevant regulatory databases should be consulted based on the jurisdiction for which the regulatory review is being conducted.

Comment should be provided regarding whether the global market history raises any specific concerns for the regulatory review (e.g., previous recalls may result in need to ascertain whether specific failure modes have been mitigated).

### Other Submission Context Information

The report should include an evaluation of any other submission context information provided in the regulatory submission.

## Chapter 3 Non-Clinical Evidence

### Chapter Table of Contents

The report does not need to include the Chapter Table of Contents provided in the regulatory submission.

### Risk Management

The report should include an evaluation of the acceptability of the manufacturer’s risk management approach including an evaluation of whether the risk management plan was appropriate, whether all expected risks were appropriately identified and mitigated, and whether the approach is consistent with relevant Essential Principles (see Appendix A) and regulatory requirements. As indicated in section 7.4.4 of IMDRF/GRRP WG/N59, the results of an audit conducted as part of a certification scheme should be considered when the CAB conducts its review of the regulatory submission.

Comment should be provided regarding whether the review of the risk management activities raises any specific concerns for the regulatory review (e.g., risks mitigated with non-clinical studies require evaluation of the specific methods and results of those studies).

###  Essential Principles (EP) Checklist

As indicated in section 7.7.2 of IMDRF/GRRP WG/N59, the CAB should review the regulatory submission with respect to the requirements of the relevant regulatory authority. To document this review, the report should include an evaluation of the acceptability of the manufacturer’s identification of applicable Essential Principles and regulatory requirements as well as the methods used to demonstrate conformity to each. Specific attention should be paid to any Essential Principle or regulatory requirement deemed not applicable by the manufacturer.

Comment should be provided as to whether the review of the Essential Principles and regulatory requirements raises any specific concerns for the regulatory review (e.g., methods used to demonstrate conformity for each Essential Principle may indicate need for particular review of specific evidence included in the regulatory submission).

###  Standards (and Guidance)

Standards and guidance are valuable resources in determining whether appropriate activities have been conducted and whether or not the evidence provided demonstrates conformity to the relevant Essential Principles and regulatory requirements. RAs may provide information on the standards recognized and may, themselves, publish guidance. If available, this information should be consulted and considered during review of information in the regulatory submission.

The report should indicate the standards and guidance documents used by the manufacturer to develop their regulatory submission. The report should indicate whether the standards are recognized by the RA for which the regulatory review is being conducted and should also include the CAB’s evaluation of whether all appropriate guidance documents and standards were identified and used by the manufacturer in order to address the applicable regulatory requirements.

###  Non-clinical Studies

Physical and Mechanical Characterization

The report should include an evaluation of the evidence to support physical and mechanical characterization including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Chemical/Material Characterization

The report should include an evaluation of the evidence to support chemical/material characterization including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Electrical Systems: Safety, Mechanical, and Environmental Protection and Electromagnetic Compatibility

The report should include an evaluation of the evidence to support electrical systems including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

Note that review of testing to support Magnetic Resonance (MR) conditional labeling and safety during anticipated conditions of use should be included under this heading of the report. This includes evaluation of

* Magnetically induced displacement force
* Magnetically induced torque
* Extent of imaging artifacts
* Radiofrequency (RF)-induced heating or heating induced by time-varying magnetic field gradients
* Gradient-induced vibration
* Gradient-induced extrinsic electrical potential
* Rectification of RF pulses from MR exams

#### Radiation Safety

The report should include an evaluation of the studies to support radiation safety including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Software/Firmware

The report should include an evaluation of the information provided to support the use of any software/firmware including whether or not the information demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements. Review of the software/firmware includes evaluation of the following topics. Chapter references relative to IMDRF/RPS WG/N9 are provided.

* Software/firmware description (Chapter 3.05.05.01),
* Hazard analysis (Chapter 3.05.05.02),
* Software requirement specification (Chapter 3.05.05.03),
* Architecture design chart (Chapter 3.05.05.04),
* Software design specification (Chapter 3.05.05.05),
* Traceability analysis (Chapter 3.05.05.06),
* Software development environment description (Chapter 3.05.05.07),
* Software verification and validation (Chapter 3.05.05.08),
* Revision level history (Chapter 3.05.05.09),
* Unresolved anomalies (bugs or defects) (Chapter 3.05.05.10),
* Cybersecurity (Chapter 3.05.05.11), and
* Interoperability (Chapter 3.05.05.12).

#### Biocompatibility and Toxicology Evaluation

The report should include an evaluation of the evidence to support biocompatibility and evaluate toxicology including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Non-Material-Mediated Pyrogenicity

The report should include an evaluation of the evidence to support pyrogenicity evaluation, such as endotoxin levels, including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Safety of Materials of Biological Origin

The report should include an evaluation of the evaluations performed to demonstrate the safety of materials of biological origin. This includes evaluation of whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Sterilization Validation

The report should include an evaluation of the evidence supporting sterility of the device including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements. The review of sterilization validation includes evaluation of the following topics. Chapter references relative to IMDRF/RPS WG/N9 are provided.

* End-user sterilization (Chapter 3.05.09.01),
* Manufacturer sterilization validation (Chapter 3.05.09.02),
* Residual toxicity (Chapter 3.05.09.03),
* Cleaning and disinfection validation (Chapter 3.05.09.04), and
* Reprocessing of single use devices, validation data (Chapter 3.05.09.05).

#### Animal Testing

The report should include an evaluation of the animal testing including whether or not the studies demonstrate conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

#### Usability/Human Factors

The report should include an evaluation of the studies assessing the instructions and/or device design relevant to the intended user in terms of impact of human behavior, abilities, limitations, and other characteristics on the ability of the device to perform as intended including whether or not the information provided demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

###  Non-clinical Bibliography

The report should include a summary of the sources included in the non-clinical bibliography. This includes an evaluation of whether or not the sources provide information that demonstrates conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements.

###  Expiration Period and Packaging Validation

The report should include an evaluation of the expiration period/shelf life and packaging validation studies including whether or not the results demonstrate conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements. The review of expiration period and packaging validation includes evaluation of the following topics. Chapter references relative to IMDRF/RPS WG/N9 are provided.

* Product stability (Chapter 3.07.01), and
* Packaging validation (Chapter 3.07.02).

###  Other Non-clinical Evidence

The report should include an evaluation of any other non-clinical evidence provided in the regulatory submission.

## Chapter 4 Clinical Evidence

### Chapter Table of Contents

The report does not need to include the Chapter Table of Contents provided in the regulatory submission.

### Overall Clinical Evidence Summary

The report should include a summary and evaluation of the clinical evidence provided to demonstrate conformity with the relevant Essential Principles (see Appendix A) and regulatory requirements. This includes any clinical studies (pre- and/or post-market) conducted by the manufacturer and/or results of a literature review. In the case of a literature review, the report should include an evaluation of the relevance of the papers reviewed and the extent to which the products referenced are comparable to the device in question.

Comment should be provided on whether the clinical evidence provided is supportive of the device and indications for use subject in the regulatory submission as well as the qualifications of any persons involved in clinical evidence evaluation.

### Informed Consent Information

The report should indicate whether informed consent forms or any other information related to informed consent of patients was provided and acceptable based on the requirements in the jurisdiction for which the regulatory review is being conducted.

### Investigators Sites and Investigational Review Board (IRB) Contact Information

The report should indicate whether investigator sites and IRB contact information were provided and acceptable based on the requirements in the jurisdiction for which the regulatory review is being conducted.

### Other Clinical Evidence

The report should include an evaluation of any other clinical evidence provided in the regulatory submission.

## Chapter 5 Labeling and Promotional Material

In addition to the regulatory requirements of a given jurisdiction, information regarding expectations for labeling may be found not only in IMDRF/GRRP WG/N47, but also the separate IMDRF/GRRP WG/N52 (“*Principles of Labeling for Medical Devices and IVD Medical* Devices”).

Specific attention should be paid to whether all product labeling (packaging, IFU, etc) is consistent with information (e.g., the methods and results from the non-clinical and clinical evidence) provided in the regulatory submission. Advertising and promotional materials may be considered elements of labeling in some jurisdictions, but, consistent with IMDRF/GRRP WG/N52, they are outside the scope of this document. Instead, the headings below align with the chapter headings within IMDRF/RPS WG/N9.

Individual jurisdictions may have their own regulations or requirements regarding other labeling elements or advertising and promotional materials. If necessary, this heading of the report can also be used to discuss any observations related to jurisdiction-specific regulations or requirements involving other labeling elements or advertising and promotional materials.

### Chapter Table of Contents

The report does not need to include the Chapter Table of Contents provided in the regulatory submission.

### Product/Package Labels

The report should include a description of the product/package labels materials provided by the manufacturer and an evaluation of whether they are in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements.

### Package Insert/Instructions for Use

The report should include a description of the package insert/instructions for use provided by the manufacturer and an evaluation of whether they are in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements.

### E-Labeling

The report should include a description of the e-labeling provided by the manufacturer and an evaluation of whether its format, availability, and change management are in conformance with regulatory requirements.

### Physician Labeling

The report should include a description of the physician labeling provided by the manufacturer and an evaluation of whether it is in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements.

### Patient Labeling

The report should include a description of the patient labeling provided by the manufacturer and an evaluation of whether it is in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements. Specific attention should be paid to whether the materials can be easily comprehended and correctly used by the user (see Section 3.05.11), particularly for devices intended to be used by lay users and not physicians.

### Technical and/or Operators Manual

The report should include a description of the technical and/or operators manual provided by the manufacturer and an evaluation of whether it is in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements.

### Patient File Stickers/Cards and Implant Registration Cards

The report should include a description of the patient file stickers/cards and implant registration cards provided by the manufacturer and an evaluation of whether they are in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements.

###  Product Brochures

The report should include a description of the product brochures provided by the manufacturer and an evaluation of whether they are in conformance with the relevant Essential Principles (see Appendix A) and regulatory requirements. Specific attention should be paid to whether the materials can be easily comprehended and correctly used by the user (see Section 3.05.11), particularly for devices intended to be used by lay users and not physicians, and as to whether the claims are consistent with the indications for use and information provided in the regulatory submission.

### 5.10 Other Labeling

The report should include an evaluation of any other labeling provided in the regulatory submission.

## Chapter 6A Quality Management System Procedures and Chapter 6B Quality Management System Device Specific Information

The report should include a summary and evaluation of quality management system procedures and device specific information provided in the regulatory submission including whether the procedures and information conform to relevant Essential Principles (see Appendix A) and regulatory requirements. At a minimum, the report should include a summary of overall manufacturing methods as well as a listing of the addresses and contact information as well as roles of all sites where the device or its components are manufactured. The report should include an evaluation of whether the information provided is acceptable or raises any concerns regarding other aspects of the regulatory review.

As indicated in IMDRF/GRRP WG/N59:

* Section 7.4.4: “If the CAB conducted an audit or receives the results of an audit as part of the marketing certification scheme, the CAB shall ensure that the audit results support the marketing submission.”
* Section 7.5.1: “If the relevant Regulatory Authority requires QMS/GMP certification prior to marketing and an audit was not part of the CAB’s evaluation, the CAB shall ensure that the manufacturer holds appropriate QMS/GMP certification relevant to the medical device under review.”

# Appendix A

## Mapping of Regulatory Review Report Headings to the Essential Principles of Safety and Performance

The below table indicates which Essential Principles of Safety and Performance as established in IMDRF/GRRP WG/N47 are primarily reviewed under which headings of the regulatory review report.

This list is not all inclusive in that Essential Principles may be evaluated within more than one heading. For brevity, only the primary Essential Principles are listed. For example, a discussion of whether or not conformity has been demonstrated relative to Essential Principle 5.1.5 regarding elimination or reduction of risks related to use may be reviewed and discussed within any or all of the below headings of the regulatory review report:

* Risk Management (Chapter 3.02)
* Essential Principles Checklist (Chapter 3.03)
* Standards (Chapter 3.04)
* Animal Testing (Chapter 3.05.10)
* Usability/Human Factors (Chapter 3.05.11)
* Overall Clinical Evidence Summary (Chapter 4.02)
* Labeling and Promotional Material (Chapter 5)

The table, however, only lists Essential Principle 5.1.5 as being primarily reviewed within Risk Management (Chapter 3.02). Where no primary heading could be identified for review of an Essential Principles, the Essential Principle is listed as being reviewed in all headings (i.e., by reviewing the totality of data provided by the manufacturer).

| Regulatory Review Report Heading |  | Essential Principle  |
| --- | --- | --- |
| All - Totality of Review |  | 5.1.1 5.1.65.1.95.5.15.5.25.5.55.5.85.9.16.1.2 6.5.1 |
| Chapter 0 Regulatory Review |  | None |
| Chapter 1 Regional Administrative  |  | None |
| Chapter 2 Submission Context  |  | None |
| Chapter 3 Non-Clinical Evidence  |  |  |
| 3.01 Chapter Table of Contents | None |
| 3.02 Risk Management | 5.1.25.1.35.1.45.1.55.5.45.5.65.7.16.3.1 |
| 3.03 Essential Principles (EP) Checklist  | All |
| 3.04 Standards (and Guidance) | All |
| 3.05 Non-clinical Studies | Refer to specific subheading |
| 3.05.01 Physical and Mechanical Characterization | 5.3.15.3.4 |
| 3.05.02 Chemical/Material Characterization | 5.3.1 |
| 3.05.03 Electrical Systems: Safety, Mechanical, and Environmental Protection and Electromagnetic Compatibility | 5.3.15.5.35.6.15.6.25.6.35.6.45.6.55.7.25.7.35.7.45.7.55.7.65.7.7 |
| 3.05.04 Radiation Safety | 5.11.15.11.25.11.35.11.45.11.55.11.66.2.16.2.2 |
| 3.05.05 Software/Firmware | 5.8.15.8.25.8.35.8.45.8.5 |
| 3.05.06 Biocompatibility and Toxicology Evaluation | 5.3.15.3.25.3.36.1.16.1.3 |
| 3.05.07 Non-Material-Mediated Pyrogenicity | 5.3.15.3.25.3.3 |
| 3.05.08 Safety of Materials of Biological Origin | 5.13.15.13.25.13.3 |
| 3.05.09 Sterilization Validation | 5.1.75.4.15.4.25.4.35.4.45.4.55.4.6 |
| 3.05.10 Animal Testing | Depends upon objectives of animal testing |
| 3.05.11 Usability/Human Factors | 5.3.55.5.75.12.15.12.25.12.36.3.26.4.16.4.2 |
| 3.06 Non-clinical Bibliography | Depends upon contents of sources |
| 3.07 Expiration Period and Package Validation | 5.1.75.1.85.4.25.4.35.4.45.4.55.4.6 |
| 3.08 Other Non-clinical Evidence | Depends upon information provided |
| Chapter 4 Clinical Evidence |  |  |
| 4.01 Chapter Table of Contents | None |
| 4.02 Overall Clinical Evidence | 5.2.15.2.2 |
| 4.03 Informed Consent Information | 5.2.15.2.2 |
| 4.04 Investigator Sites and IRB Contact Information | 5.2.15.2.2 |
| 4.05 Other Clinical Evidence | Depends upon information provided |
| Chapter 5 Labeling and Promotional Material |  |  |
| 5.01 Chapter Table of Contents | None |
| 5.02 Product/Package Labels | 5.4.75.10.1 |
| 5.03 Package Insert/Instructions for Use | 5.1.45.4.75.10.1 |
| 5.04 E-Labeling | 5.1.45.4.75.10.1 |
| 5.05 Physician Labeling | 5.1.45.4.75.10.1 |
| 5.06 Patient Labeling | 5.1.45.4.75.10.1 |
| 5.07 Technical/Operator Manual | 5.1.45.4.75.10.1 |
| 5.08 Patient File Stickers/Cards and Implant Registration Cards | 5.4.75.10.1 |
| 5.09 Product Brochures | 5.4.75.10.1 |
| 5.10 Other Labeling  | Depends upon information provided  |
| Chapter 6A Quality Management System Procedures and Chapter 6B Quality Management System Device Specific Information | All | 4.0 |

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1. IMDRF GRRP WG documents generally use the terms “marketing review,” “marketing submission,” and “marketing review report.” This document uses the terms “regulatory review,” “regulatory submission,” and “regulatory review report” to clarify that a regulatory review may be conducted outside of a specific request for marketing authorization. [↑](#footnote-ref-2)