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Clinical evidence for medical devices and IVDs: A comparison of requirements in Brazil and the EU

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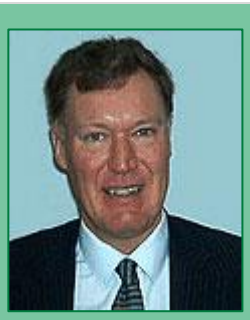

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Clinical evidence for medical devices and IVDs: A comparison of requirements in Brazil and the EU

Introduction

In several markets, such as China, Australia, Brazil and especially the European Union (EU), the requirements for demonstration of safety and efficacy/performance through clinical data have increased in recent years. Moreover, the International Medical Device Regulators Forum (IMDRF) continues to drive harmonisation efforts for worldwide convergence of national regulations in this field.

In the case of Brazil, manufacturers used to submit only bibliographic references and a brief summary of clinical data to the Brazilian National Health Surveillance Agency (*Agência Nacional de Vigilância Sanitária*, ANVISA) for the registration of medical devices. This procedure is, however, no longer sufficient to meet current requirements. To comply with the safety and efficacy/performance requirements, which were initially established by Resolution RDC No. 56/2001[1], and replaced by Resolution RDC No. 546/2021[2], a Clinical Evaluation Report is required. The regulation for *in vitro* diagnostic medical devices (IVDs) in Brazil is also evolving, but clinical data are already needed, in some cases since 2015, with the publication of Resolution RDC No. 36/2015[3]. In addition to these Resolutions, ANVISA also published three guides in 2019 that addressed the topics of clinical evidence (Guide 29/2019)[4], clinical investigation (Guide 30/2019)[5] and clinical evaluation (Guide 31/2020)[6] for medical devices.

In the EU, the assessment of clinical data is performed by Notified Bodies, organisations designated by EU Member States to verify the conformity of medical devices/IVDs being placed on the market. With the implementation of Regulation (EU) 2017/745 on medical devices (MDR)[7], the clinical evaluation of medical devices is even more demanding; it is no longer a mere report but has become a process. Similarly, a comparable process has been established for the collection and analysis of clinical data relating to IVDs with the publication of Regulation (EU) 2017/746 (IVDR)[8]. Several guidance documents from the Medical Device Coordination Group (MDCG) on how to implement the new regulatory requirements have also been published recently and more are expected, particularly for IVDs.

This article aims to help manufacturers of medical devices or IVDs to understand the evolving demands on clinical data by clarifying the documentation requirements and the scientific methodology behind systematic literature searches – one of the main tools in the collection and

evaluation of clinical data. Moreover, the article discusses current trends in regulatory convergence and upcoming challenges for market access by comparing the Brazilian and EU requirements on clinical data.

Regulations for clinical data for medical devices

Requirements for clinical data in Brazil and the EU

Brazilian Resolution RDC No. 56/2001[1], now replaced by Resolution RDC No. 546/2021[2], has approved and listed Essential Requirements for medical devices since 2001. These requirements are fundamental criteria to be followed during the development, production and post-production of medical devices. According to RDC No. 546/2021, manufacturers must provide clinical data to demonstrate compliance with the requirements on general safety (Article 6) and efficacy/performance (Article 9). The Resolution states that clinical data should be collected from scientific publications or generated by clinical investigation specifically conducted for the device in question.

Ongoing clinical investigations with medical devices in Brazil are still regulated by Resolution RDC No. 10/2015[9] but new clinical investigations must follow the recently published Resolution RDC No. 548/2021[10]. Both Resolutions are consistent with ISO 14155, which provides instructions on Good Clinical Practice (GCP). Resolution RDC No. 10/2015 and Resolution RDC No. 548/2021 define general requirements for the approval, control and monitoring of clinical investigations, but do not provide concrete rules on when a clinical investigation should be conducted. This has been addressed by the Technical Note No. 004/2016/GGTPS/DIREG/ANVISA[11].

Additionally, the guides on clinical evaluation (Guide 31/2020)[6], clinical investigation (Guide 30/2019)[5] and clinical evidence (Guide 29/2019)[4] provide more accurate and harmonised guidance on regulatory requirements to prove the safety and efficacy/performance of medical devices for registration in Brazil. ANVISA was, in fact, one of the first IMDRF members to implement the Forum's current recommendations on clinical data, which are described in the revised IMDRF guidelines[12,13,14]. However, there are IMDRF members (such as the EU) who have required clinical evidence for a long time.

Through Directive 93/42/EEC, the EU established that manufacturers (particularly of Class III medical devices and implants) must provide clinical data to demonstrate conformity to the Essential Requirements (Annex I)[15]. The first guidance document on clinical data evaluation in the EU was published in 2003, but Notified Bodies effectively started to ask for full documentation after the fourth revision of the MEDDEV 2.7/1 guideline, published in 2016[16].

Most recommendations outlined in the MEDDEV guideline have been incorporated into the MDR, which requires that clinical data must be provided to demonstrate compliance with the General Safety and Performance Requirements (Sections 1 and 8 of Annex I). The requirements for evaluating clinical data are described in Article 61 and Annex XIV, and if clinical investigations are necessary, the requirements described in Article 62 to Article 82, as well as Annex XV, must be followed.

In addition, several guidance documents relating to clinical evaluation, clinical investigation and clinical evidence have been published by the MDCG in recent years, including MDCG 2020-1[17], MDCG 2020-5[18], MDCG 2020-6[19], MDCG 2020-10/1[20], MDCG 2020-10/2[21] and MDCG 2020-13[22]. Other guidance documents such as MDCG 2019-9[23], MDCG 2020-7[24] and MDCG 2020-8[25] address the preparation of further documents relating to clinical data, which are discussed below.

Similarities and differences between the Brazilian and EU contexts

For manufacturers interested in approving their devices in various markets, it is important to understand the different regulatory requirements of each jurisdiction to benefit from synergies and be aware of potential gaps in the technical documentation when transferring or adapting a technical file from one market to another. In terms of clinical data, the definitions are very similar in Brazil and the EU, but to meet the EU requirements it is necessary to cover topics that go beyond safety and efficacy/performance, such as usability, the benefit(s) of the device, and the current state of the art in the particular field of medicine.

In addition, the MDR considers clinical data evaluation as a process which includes planning, reporting (Annex XIV, Part A) and periodically updating of clinical data (Annex XIV, Part B). The latter is known as Post-Market Clinical Follow-up (PMCF) and is part of a post-market surveillance system. PMCF data, together with other relevant data, should provide 'sufficient clinical evidence' to declare compliance with the General Safety and Performance Requirements throughout the medical device lifecycle. Finally, a summary of clinical evaluation, known as the Summary of Safety and Clinical Performance (SSCP), is also required from manufacturers of Class III medical devices or implants and will be publicly accessible through EUDAMED.

Importantly, the MDR makes it more difficult to demonstrate equivalence of medical devices: to claim equivalence between Class III medical devices or between implants that have different manufacturers, it is currently mandatory for the manufacturer to have access to the competitor's technical documentation, and a legal contract must be in place between them to allow such access.

The definitions of clinical evidence and clinical data

The term 'sufficient clinical evidence' is not explicitly defined in the IMDRF guidelines or ANVISA guides, nor by the MDR. Guide 29/2019[4] addresses the topic more generally and mentions that 'given the complexity of the environment of medical devices, the assessment of what is acceptable clinical evidence with the aim of demonstrating compliance with the Essential Requirements should be carried out on a case-by-case basis'.

One of the requirements of the MDR is that the level of clinical evidence defined by the manufacturer must be specified in the Clinical Evaluation Plan, taking into account the characteristics of the device and its intended use (Article 61(1)). According to MDCG 2020-6[19], clinical evidence should cover the General Safety and Performance Requirements, clinical benefits, risks and the risk/benefit analysis, taking into account state of the art as well as alternative treatment options. Therefore, clinical data must be provided for each of these aspects. To determine whether the clinical evidence is sufficient, methodological quality assessment tools can be used.

Scientific methodologies for a literature search

For most Clinical Evaluation Reports, data obtained from the literature will comprise the bulk of the clinical data to provide clinical evidence. ANVISA Guide 31/2020[6] uses the description that 'reasonable efforts should be made to conduct a comprehensive search'. There are several scientific methods that can be used to conduct such a comprehensive literature search. They also ensure that the literature search is objective, systematic and reproducible.

Documentation of a literature search

A methodology that covers the entire literature review process is the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)[26], which is derived from the Quality Of Reporting Of Meta-analyses (QUOROM). These methodologies are internationally accepted and referenced by both MDCG 2020-13[22] and Guide 31/2020[6]. Although a clinical evaluation is not exactly a systematic review or a meta-analysis, the PRISMA checklist and flow diagram that depicts the course of information through the review stages, can be applied. The PRISMA checklist includes, among others, reporting recommendations for literature search strategies. Documenting in detail the 'what, when and how' of the searches allows an assessment of the completeness of the review. The 'what' refers to the information sources such as databases or registries that were searched, the 'when and how' indicates search criteria such as date range, search terms and search filters[27]. The clinical evaluation guide (Guide 31/2020) describes in Appendix C a possible flow chart for documenting the screening and

selection of studies in a literature search report. Figure 1 summarises this flow chart with further explanations.

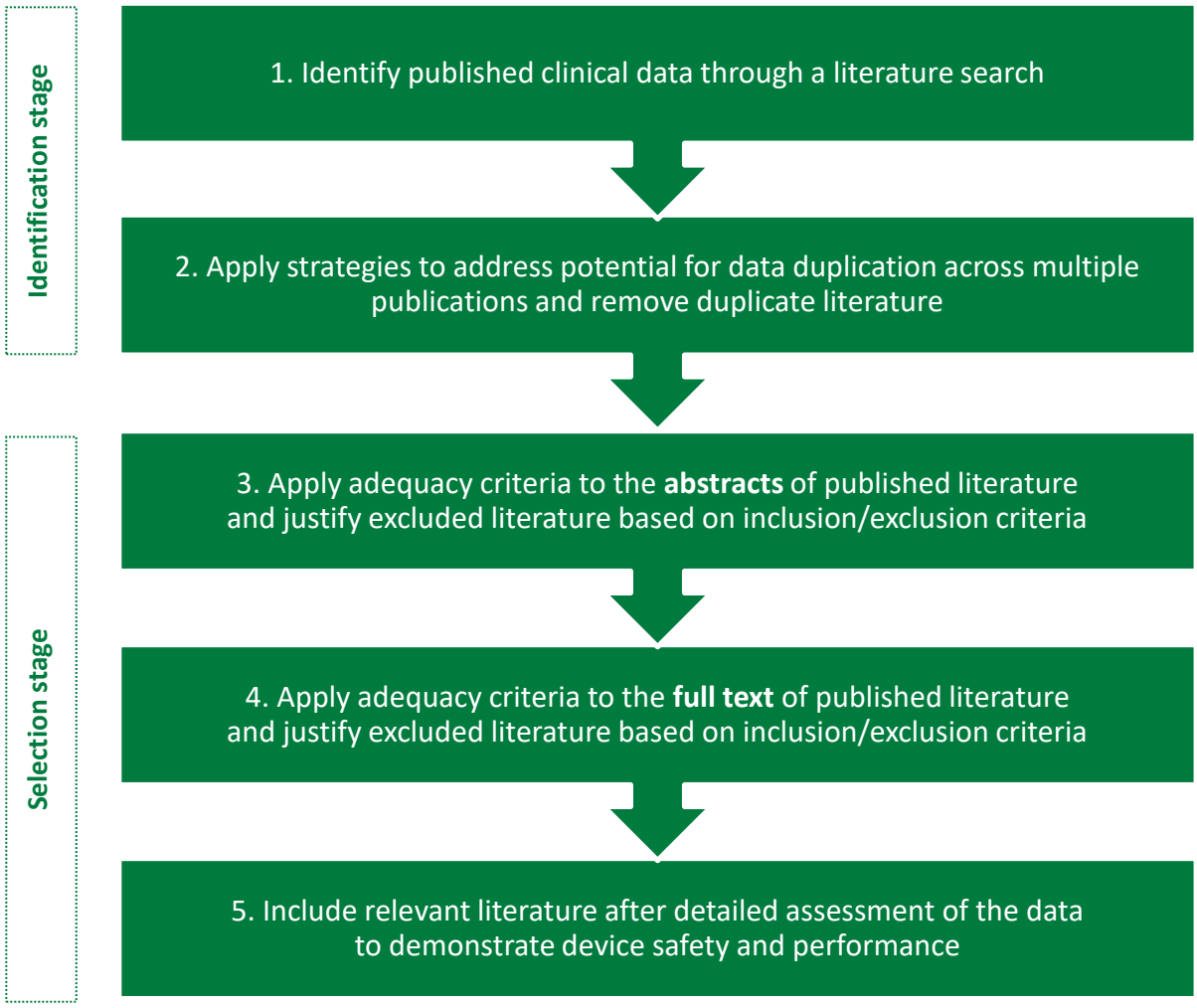

Figure 1. Overview of QUOROM/PRISMA recommendations

Identification stage

An initial database search may generate many potentially relevant publications. The first step is to exclude publications that appear more than once in the search results. This can be done through reference manager systems, functionalities in Microsoft Excel spreadsheets, or even through the recombination of individual database search results. The publications are then selected in two stages.

Selection stage

Before starting the literature selection process, the inclusion and exclusion selection criteria must be defined. These criteria serve to justify the choice of literature and vary depending on the type of device. Although the exclusion criteria are implicitly the opposite of the inclusion criteria, defining both helps to avoid ambiguity[28] and facilitates the evaluation.

Abstracts of publications are generally analysed at the beginning of the selection process; however, they do not contain all the information needed to make a comprehensive assessment. For example, the brand name of the device is often not found in the abstract but eventually can be extracted from the full text. In such cases, it makes sense to exclude only publications that explicitly cite non-comparable devices, keeping all publications where it is not yet clear what type of device has been used. Thus, the selection criteria may be applied in a more general way during the first stage, and will help to exclude non-relevant literature and include potentially relevant literature.

After the exclusion of non-relevant publications based on the appraisal of the abstracts and using the various inclusion and exclusion criteria, the full text is analysed in a second selection stage. To maintain consistency, the same selection criteria previously established must be applied, thus leading to the identification of literature with relevant data.

Appraisal and analysis of literature data

Appraisal of the quality and relevance of publications

The collected data should be appraised for quality and relevance using weighting criteria to determine whether the data contribute to the demonstration of overall safety and clinical efficacy/performance of the device. This appraisal should include, for instance, differences in study characteristics such as the type of device used, the specific use scenario, or the patient group. However, the publications do not always describe in detail the methodology used in the study, nor do they often describe all the characteristics necessary to make a standardised appraisal. Therefore, for each clinical evaluation, both the selection criteria and the weighting criteria need to be adapted.

Analysis of clinical data

Just like the evaluation of the dataset for quality and relevance, the analysis of the dataset in relation to safety and efficacy/performance is also specific to each device. Quantitative methods for data analysis are usually used in meta-analyses, in cases where it is possible to cross-compare results of similar studies. Statistical methods can, however, hardly ever be applied in a clinical evaluation of medical devices, as clinical data from scientific literature are mostly very heterogeneous.

Nevertheless, even without applying an advanced statistical methodology, quantitative data such as the total number of patients treated with the device, the number of patients who benefitted from the use of the product, and the number of patients who suffered from any adverse event or side effect, should be extracted, as these data are an important quantitative indicator for the analysis. The analysis should also focus on qualitative results (checking if the device worked as intended, identifying

the risks and benefits reported, etc.) and on demonstrating compliance with the Essential Requirements.

Clinical data for IVDs

Regulations for IVDs are also evolving in the international context, and requirements regarding the demonstration of their safety and efficacy/performance using clinical data have increased greatly.

ANVISA Resolution RDC No. 36/2015[3] requires a performance study for Class II, III and IV devices and the demonstration of clinical performance for Class III and IV products. In addition, Guide 31/2020[6] suggests that the assessment of clinical evidence for IVDs should follow the same principles as for other medical devices, and also makes reference to two documents from the former Global Harmonization Task Force (GHTF, predecessor to the IMDRF) on clinical evidence concepts for IVDs[29,30].

The *Manual for the Regularization of Products for In Vitro Diagnosis at ANVISA*[31] states that data to demonstrate an association between the analyte and the clinical condition or physiological state can be obtained from clinical literature, existing clinical experiences concerning similar devices, or from a device-specific clinical investigation. In reality, a clinical investigation is rarely required in this case. If a study involving human beings is necessary to prove the safety and efficacy/performance of an IVD of Class III or IV, it should follow GCP and the new Resolution RDC No. 548/2021[10], which addresses clinical investigations involving medical devices or IVDs in Brazil.

The generation of clinical evidence under the IVDR in the EU is more comprehensive. For all products, regardless of their risk class, a performance evaluation is required. The performance evaluation is based on data on the association of an analyte with a clinical or physiological state (scientific validity), the analytical performance and, if applicable, the clinical performance of the device (Article 2(44)).

As a general methodological principle, the manufacturer shall, in accordance with Annex XIII, point 1.2:

- identify, through a systematic review of the scientific literature, the available data relevant to the device and its intended purpose, and identify any remaining unaddressed issues or gaps in the data;
- appraise all relevant data by evaluating their suitability for establishing the safety and performance of the device;
- generate any new or additional data necessary to address outstanding issues.

The date of application of the IVDR is set for 26 May 2022 but there are still several outstanding questions from IVD manufacturers on performance evaluations. To clarify these issues, a new guidance document from the MDCG on this topic is expected in the coming months. To date, only MDCG 2020-1 on the performance evaluation for medical device software used as an IVD has been published[17].

Table 1 highlights the differences and similarities between the Brazilian and EU requirements for clinical data for IVDs and compares them with the recommendations from the former GHTF.

The definitions of performance evaluation, performance study, and clinical performance are not identical in Brazil and in the EU. However, the principles are similar and there are common expectations for sufficient clinical evidence to demonstrate compliance with relevant Essential Safety and Efficacy Requirements (Brazil) or General Safety and Performance Requirements (EU).

One important difference between the Brazilian and EU regulations is that, in the same way that clinical evaluation is still just a report in Brazil but has become a process under the MDR in the EU, performance evaluation under the IVDR should also be carried out throughout the device lifecycle. In Brazil, a performance study report and reports relating to clinical performance are prepared as a requirement for market access whereas a performance evaluation in the EU must be implemented through a specific plan and the report must contain clinical data (if applicable, depending on device characteristics), which must be collected proactively. These activities are called Post-Market Performance Follow-up (PMPF) and are part of the post-market surveillance system. A summary of the performance report, the Summary of Safety and Performance (SSP), should be prepared for IVDs of Class C and D and must be publicly accessible through EUDAMED.

The Brazilian regulations mention that the Clinical Evidence Report, which is part of the assessment of clinical performance, should discuss how the data from selected clinical studies can be considered sufficient to support indications for use. In the European context, the required level of clinical evidence should be specified in the Performance Evaluation Plan, and must be appropriate to the characteristics of the device. In practice, it will be necessary to provide clinical data to demonstrate that the device is safe and achieves the intended clinical benefit, based on the state of the art. To determine and justify the level of clinical evidence, both the quantity and quality of the data should be assessed. Moreover, the IVDR states that clinical performance studies shall be carried out unless it is duly justified to rely on other sources of clinical performance data. This means that if there are not sufficient clinical data from other sources available, a clinical performance study will be required. This type of investigation shall then be in line with well-established international guidance in the field, such as the standard ISO 20916:2019 on GCP for performance studies.

Table 1. Clinical data requirements for IVDs in Brazil and the EU

Item	Brazil's requirements	GHTF recommendations	EU requirements
Regulations and guidance documents	**Resolution RDC No. 36/2015**[3] ***Manual for the Regularization of Products for In Vitro Diagnosis at ANVISA*, 2015**[31] **Guide 31/2020**[6]	**GHTF/SG5/N6:2012**[29] **GHTF/SG5/N7:2012**[30]	**Regulation (EU) 2017/746 (IVDR)**[8]
Applicability	Clinical performance for Classes III and IV.	Clinical Evidence Report for all risk classes. Clinical performance would not be expected for Class A IVD devices.	Performance Evaluation Report for Classes A, B, C and D. If analytical and/or clinical performance is not applicable, a justification should be added in the performance report.
Definition of performance evaluation	The term 'performance evaluation' is not defined. However, a 'performance study assessment' is required for Classes II to IV.	Performance evaluation is the assessment and analysis to establish or verify the scientific validity, analytical performance and, where applicable, clinical performance.	Performance evaluation of a device is a continuous process by which data are assessed and analysed to demonstrate the scientific validity, analytical performance and, where applicable, clinical performance of that device for its intended purpose, as stated by the manufacturer.
Definition of performance study	Performance studies are an assessment of the performance of an IVD based on available data and laboratory or clinical investigation to determine characteristics such as sensitivity, specificity, repeatability and reproducibility.	The term performance study is not defined.	A study undertaken to establish or confirm the analytical or clinical performance of a device.
Definition of clinical performance	Clinical performance is an assessment carried out to establish or confirm an association between the	Clinical performance is the ability of an IVD to yield results that are correlated with a particular clinical	The ability of a device to yield results that are correlated with a particular clinical condition or a physiological or pathological process or state in

Item	Brazil's requirements	GHTF recommendations	EU requirements
	analyte and the clinical condition or physiological state.	condition/physiological state in accordance with the target population and intended user.	accordance with the target population and intended user.
Definition of clinical evidence	The term 'clinical evidence' is not defined. However, a General Summary of Clinical Evidence and a Clinical Evidence Assessment Report that discusses how the data from selected clinical studies are considered sufficient to support indications for use are required.	Clinical evidence for an IVD is all the information that supports the scientific validity and performance for its use as intended by the manufacturer.	The clinical data and performance evaluation results pertaining to a device of a sufficient amount and quality to allow a qualified assessment of whether the device is safe and achieves the intended clinical benefit(s), when used as intended by the manufacturer.
Use of data from equivalent or comparable device	Applicable.	Applicable.	Applicable but there is still a lack of information on how to demonstrate equivalence of devices.
Data source to demonstrate scientific validity	For analytes with an established and confirmed purpose, the following may be presented: • a review of the clinical literature; *or* • a description of clinical experiences concerning identical or similar products.	Potential sources for the identification of scientific validity information are: • information from devices that measure the same analyte; • literature review; • review of expert opinions; • results of proof-of-concept studies; • results from clinical performance studies.	The manufacturer shall demonstrate the scientific validity based on one or more of the following sources: • relevant information on the scientific validity of devices measuring the same analyte or marker; • scientific (peer-reviewed) literature; • consensus expert opinions/positions of relevant professional associations; • results from proof-of-concept studies; • results from clinical performance studies.

Item	Brazil's requirements	GHTF recommendations	EU requirements
Data source to demonstrate analytical performance	Performance studies (which include laboratory or clinical investigations to determine characteristics such as sensitivity, specificity, repeatability and reproducibility) are not required for Class I products.	Analytical performance studies are always expected for each IVD medical device.	As a rule, the analytical performance shall be demonstrated based on analytical performance studies.
Data source to demonstrate clinical performance	• Investigative study information. • Review the clinical literature: critical analysis of available or known published information describing the safety and efficacy/performance of the product. • Known clinical experiences: for analytes that do not have sufficient literature, provide a description of existing clinical experiences for products similar to or identical to the device targeted by the application. Justify the selection of clinical evidence used and submit a statement that no literature relating to the device was found.	Manufacturers are able to draw on one or more data sources to demonstrate clinical performance: • clinical performance studies; • scientific literature; • experience gained by routine diagnostic testing.	Demonstration of the clinical performance of a device shall be based on one or more of the following sources: • clinical performance studies; • scientific peer-reviewed literature; • published experience gained by routine diagnostic testing. Clinical performance studies shall be performed unless due justification is provided for relying on other sources of clinical performance data.
Methodological principle to evaluate clinical data	A clinical assessment (clinical performance assessment) should be performed for IVDs as part of the evaluation of compliance with the Essential Requirements, similar to other medical devices. The basic principles of objective review of clinical data shall be applied as described in Guide 31/2020.	Information to support clinical evidence consists of two major phases: the identification of the scientific validity of the analyte and the performance evaluation of the specific IVD: • gather information to support clinical evidence; • appraise and analyse the data;	The performance evaluation plan shall specify the characteristics and performance of the device and the process and criteria applied to generate the necessary clinical evidence: • identify available data relevant to the device; • appraise all relevant data by evaluating their suitability;

Item	Brazil's requirements	GHTF recommendations	EU requirements
		• if the manufacturer concludes that there is insufficient clinical evidence to be able to declare conformity with the Essential Requirements, the manufacturer will need to generate additional data.	• generate any new or additional data necessary.
Documents to be prepared	• Performance Study Report (Class II, III and IV). • Clinical performance (Class III and IV) to be documented through: – General Summary of Clinical Evidence; – expected or reference values; – Clinical Evidence Evaluation Report; – device specific clinical investigations.	Clinical Evidence Report (all classes). The Clinical Evidence Report may reference or be a compilation of the information relating to scientific validity, analytical performance and, where applicable, clinical performance.	• Performance Evaluation Plan (all classes). • Performance Evaluation Report (all classes), including Scientific Validity Report, Analytical Performance Report, Clinical Performance Report, and an assessment of those reports allowing demonstration of the clinical evidence. • Summary of Safety and Performance for Class C and Class D IVDs.
Performance evaluation update	There are no requirements regarding post-market monitoring or updating of the requested reports.	Information relating to clinical evidence should be monitored routinely by the manufacturer once the IVD is available on the market.	The clinical evidence and its assessment in the performance evaluation report shall be updated throughout the lifecycle of the IVD with data obtained from implementation of the Post-Market Performance Follow-up Plan.

Finally, when applying for market approval in Brazil and in the EU, it is important to note that although ANVISA accepts the demonstration of equivalence for IVDs, the IVDR does not clearly indicate what the criteria are for defining which IVDs may be considered equivalent for the collection and appraisal of clinical data. For that reason, it is still unclear whether the use of equivalence will become more restricted in the EU, as is already the case with medical devices regulated by the MDR.

Conclusion

Within the international context, the clinical evaluation of medical devices and the performance evaluation of IVDs are currently developing from a simple report into a quality management process. Regulations are constantly evolving, and new guidance documents have recently been published in Brazil, the EU and other IMDRF members, such as China and Australia. In the case of Brazil, a Clinical Evaluation Report is still sufficient to cover the clinical requirements for the registration of medical devices, such as equipment, materials or software. Similarly, for the registration of high-risk IVDs, a report containing clinical performance data is required. In the EU, however, a continuous collection, appraisal and reporting of clinical data is expected for both medical devices and IVDs. Importantly, the review of clinical data must be based on scientific methods in all jurisdictions (i.e. objective, systematic and reproducible methods must be used).

One of the greatest difficulties in conducting a clinical evaluation or a performance evaluation is to identify relevant and significant data in the literature. A lot of knowledge and practice is required to establish search protocols that result in a reasonable number of publications to be assessed, without disregarding potentially relevant publications. Recommendations such as QUOROM and PRISMA help in the presentation and understanding of the literature search stages. Additionally, there is the issue of assessing clinical data in terms of quality and relevance as well as providing 'sufficient clinical evidence'. Several guidance documents, such as the IMDRF guideline on clinical evaluation[13] and ANVISA Guide 31/2020[6], provide general weighting criteria and information on performing a quantitative and qualitative data analysis. Also, the definition of 'sufficient clinical evidence' is expected to be defined and justified by the manufacturer. However, this can generate more questions than answers for manufacturers not yet accustomed to this process since there is a wide variety of medical devices and IVDs on the market and no 'one size fits all' strategy for assessing clinical data.

The preparation of various documents that consider clinical data has indeed been a major challenge for the commercialisation of medical devices on the Brazilian and EU markets. Most manufacturers are still trying to adapt to these high demands, both in the search for and training of personnel (as medical device and IVD manufacturers need evaluators who are trained and

experienced with scientific work) and in the implementation of procedures and applications that can automate at least part of the collection and appraisal of clinical data.

Finally, in the case of IVDs, there are still only a few guidance documents available on preparing Performance Evaluation Reports. Many IVD manufacturers have had limited experience with analysing these types of data to date, yet they will be expected to adapt quickly to new requirements. In addition, legislation is evolving in several jurisdictions. In the EU, the IVDR will enter into force next year, while in Brazil an updated version of the current Resolution RDC No. 36/2015 should be published shortly, including a new classification system, convergent with the classification presented by IMDRF guidelines and the IVDR.

Clinical evidence, demonstrated through a clinical evaluation, is a key piece in the regulation of medical devices, both for a registration in Brazil and for market approval in other parts of the world, particularly in the EU. Likewise, the requirement to demonstrate clinical evidence for IVDs tends to be part of the market entry requirements in several jurisdictions. With regulatory convergence, the principles of clinical and performance evaluations are becoming very similar. This is expected to lead to a common understanding of the safety, clinical performance and/or efficacy/performance of medical devices from all stakeholders, more efficient use of resources for healthcare and medical device regulators, as well as greater transparency and confidence in the global regulatory model[32]. Nevertheless, as discussed in this article, there are still several peculiarities that need attention when preparing the technical documentation to be submitted to the different regulatory authorities.

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