



MEDICAL DEVICE APPROVALS IN BRAZIL: A REVIEW AND UPDATE



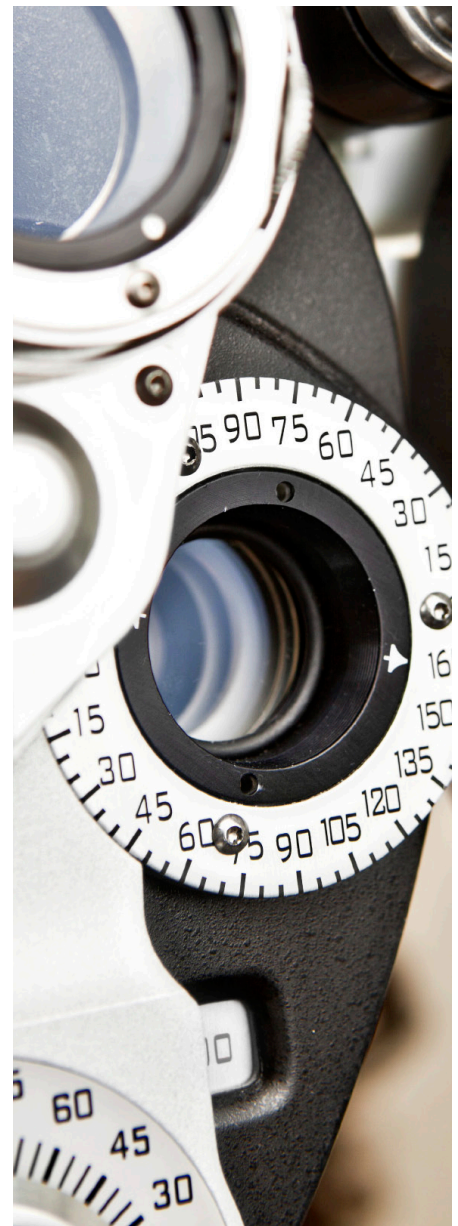
Medical Device Approvals in Brazil: A Review and Update

With a population of more than 190 million people and a mature healthcare system, Brazil represents the largest medical equipment market in South America and one of the largest markets in the world¹. Manufacturers seeking to expand their market reach by selling medical devices in Brazil will encounter an evolving regulatory approvals system, including mandatory device registration. Because the Brazilian market represents such a significant opportunity, manufacturers of medical devices can benefit from understanding both the regulatory requirements and the registration and certification process for their products.

This UL white paper reviews Brazil's current regulatory framework for medical devices, and the requirements for those entities seeking to manufacture, import or sell medical devices in the country. It also discusses the registration and certification process required of all device manufacturers, importers and distributors, and the steps necessary to secure and maintain approval for medical devices. This white paper includes information on requirements found in RDC 27/IN-3 and Resolution 350, published by Brazilian regulatory authorities in June 2011.

Regulatory Background

Resolution RDC No. 185 of October 22, 2001² is the primary regulation applicable to the registration of all medical devices, except for in vitro diagnostic (IVD) devices, which are covered by Resolution RDC No. 206 of November 2006. RDC No. 185 describes the applicable device registration protocol and lists the documents required to legally register a medical device in Brazil. Annex II of RDC No. 185 describes the classification structure applicable to medical devices, assigning medical devices to one of four distinct risk classes (I, II, III and IV) according to 18 different rules. The classification structure for medical devices in Brazil corresponds to that used in the European Union (EU) under Council Directive 93/42/EEC concerning medical devices.





Brazil is a member of the Southern Common Market, also known as MERCOSUR, which includes the countries of Argentina, Paraguay and Uruguay. As such, the process for the registration of medical devices in Brazil has been partially harmonized with that of these countries, theoretically easing the process of gaining admission to these other markets.

ANVISA Registration Process

All medical devices imported into or distributed within Brazil must first be registered with the Agência Nacional de Vigilância Sanitária, also known as ANVISA or the National Health Surveillance Agency. Established in 1999³ under Brazil's Ministry of Health, ANVISA is an independently administered, financially autonomous regulatory agency responsible for the regulation and oversight of medical devices and other medical products in Brazil. Specifically, ANVISA is responsible for the registration of medical devices and for the maintenance of a registered products database⁴. Unlike the EU Notified Body system, the 510(k) system of the Food and Drug Administration (FDA) in the United States, or the Canadian Medical Device Conformity Assessment System (CMDACS), ANVISA performs all registration and inspection functions within the agency.

Only companies based in Brazil can apply for ANVISA registration. Therefore,

companies based elsewhere that do not have subsidiaries in Brazil must depend on Brazilian-based third parties, such as hosting companies, distributors and dealers, to obtain ANVISA registration for medical devices. Under such an arrangement, the local third party holds the ANVISA registration, and a manufacturer must maintain an effective commercial relationship with a third party to ensure the ongoing maintenance of a registration. Otherwise, a manufacturer will need to repeat the registration process with another local third party to maintain market access.

The registration of most Class 1 and 2 devices involves a relatively simple application process – referred to as “cadastro,” meaning “abbreviated registration” – based on the low to moderate risk associated with devices in these classes. However, based on the greater degree of risk associated with their use, a more rigorous process applies to some Class 1 and Class 2 medical devices, as well as all Class 3 and Class 4 devices. In these cases, the party applying for ANVISA registration may be required to provide some or all of the following documentation with an application, depending on the device characteristics and classification:

1. Free sales certificate (it can be replaced by the INMETRO certificate when applicable)

2. Certificate of Good Manufacturing Practice (GMP)
3. Instructions manual in Portuguese
4. Labeling and packaging
5. Letter from the device manufacturer, authorizing a Brazilian company to hold the product registration and distribute a device
6. Clinical trials (sometimes it can be replaced by the INMETRO certification or literature proving the effectiveness of the device)
7. List of all device accessories
8. For some devices, such as implantable medical devices, cardiovascular products, high-risk IVDs, dialysis equipment and personal hearing aid systems, an Economic Information Report
9. INMETRO certificate, when applicable

The complete set of documentation depends on the nature of the device, e.g., IVD devices, implants, electro-medical devices, etc. Defining the exact package of documentation is a complex process, and requires consulting various laws and decrees (Law 6360:1976, RDC No. 185:2001 and RDC No. 59:2000). The documentation list above applies to the majority of medical devices; in practice, however, required documentation can be much more extensive.



GMP Inspection and Certification

GMP certification based on an inspection conducted by ANVISA is required for registration (RDC No. 25, May 21, 2009). The GMP certificate must be submitted with the registration application for all Class III and IV devices, as well as for Class I and II devices noted on the Exemption List (Instruction IN-2, June 6, 2011). GMP inspections are also required to revalidate or update existing registrations. The GMP certificate is valid for two years, and ANVISA alone determines whether subsequent evaluations can be completed remotely through a paperwork audit. The application for GMP should contain the following documentation:

- Device description and indication of risk class
- Complete flow chart describing the relationship with third-party manufacturers, if any
- Payment receipt for the GMP inspection fee
- The GMP inspection check for compliance with RDC No. 59

INMETRO Certification Process

Brazil's Instituto Nacional de Metrologia, Normalização e Qualidade Industrial, also known as INMETRO or the National Institute of Metrology, Standardization and Industrial Quality, is the body

responsible for accrediting certification organizations that certify products for compliance with applicable requirements and authorize the use of approved certification marks. This certification scheme is known as the Brazilian Conformity Assessment System (SBAC). UL has been accredited by INMETRO to evaluate and test products, devices, equipment, material, processes and services for compliance with the standards recognized by SBAC.

To qualify for INMETRO certification, medical device manufacturers must have their products tested to SBAC-recognized standards by an INMETRO-accredited testing laboratory. The Associação Brasileira de Normas Técnicas, also known as ABNT or the Brazilian Association for Technical Standards, is responsible for the approval of all standards and for the application of any national deviations, typically limited to translation of a standard into Portuguese. ABNT approved standards are generally preceded by an NBR designation.

Consistent with the requirements of RDC No. 27 and IN-3 published in June 2011, all medical devices sold in Brazil that fall under the scope of the following standards must be INMETRO certified:

- NBR IEC 60601 series
- NBR ISO 6875:1998: Dental patient chair

- NBR ISO 7785-1:1999: Dental handpieces – Part 1: High-speed air turbine handpieces
- NBR ISO 7785-2:2004: Dental handpieces – Part 2: Straight and geared angle handpieces
- NBR ISO 9680:2001: Dentistry - Operating lights
- NBR ISO 9919:1997: Medical electrical equipment – Particular requirements for the basic safety and essential performance of pulse oximeter equipment for medical use
- NBR ISO 11195:2000: Gas mixers for medical use – Stand-alone gas mixers
- NBR ISO 8835-2:2010: Inhalational anaesthesia systems – Part 2: Anaesthetic breathing systems
- NBR IEC 61689:1998: Ultrasonics – Physiotherapy systems – Field specifications and methods of measurement in the frequency range 0.5 MHz to 5 MHz

Importantly, under RDC No. 27 and Instruction IN-3, the third edition of IEC 60601-1 is now acceptable in Brazil for INMETRO certification. This is a significant change from RCD No. 32 that omitted the third edition of IEC 60601-1 from the Brazilian certification scheme.

Steps to INMETRO Certification

Once a medical device has been tested to the requirements of the appropriate technical standard and all user manuals have been translated into Portuguese, an applicant can proceed with the INMETRO certification process. The INMETRO-accredited certification body will then conduct the steps described in the following sections.

1: Documentation Analysis

First, the certification body will review the product documentation, consisting of the following:

- User manuals translated into Portuguese
- Quality manual and master control list of a manufacturer's quality management system
- Some certification agencies will accept a manufacturer's test reports, such as IECEE CB Scheme test reports, that have been issued within the past two years. Other test that are acceptable to a wider range of certification agencies include reports issued by organizations accredited by signatories of the International Laboratory Accreditation Cooperation (ILAC), including the American Association for Laboratory Accreditation (A2LA) and the U.S. National Voluntary Laboratory Accreditation Program (NVLAP).
- If a device remains unchanged since the test reports were originally issued, a manufacturer should provide a declaration to that effect

The certification body will review the test reports to assess whether a medical device has been completely evaluated to all applicable standards, including collateral and particular standards, and complete any additional tests that might be required. During this analysis, the certification body may also create a file that contains technical information about a device, including a list of critical components. When the certification body is satisfied that a product complies with applicable requirements, a pre-license inspection is performed.



2: Pre-License Inspection

This factory inspection is similar to CENELEC’s Common Interest Group (CIG) 23 quality inspection. The scope of the pre-license inspection includes verification of compliance with the following clauses of ISO 13485:2003:

- 4.2.3: Control of documents
- 4.2.4: Control of records
- 7.1: Planning of product realization
- 7.2.3: Customer communication
- 7.3.6: Design and development validation
- 7.3.7: Control of design and development changes
- 7.4.3: Verification of purchased product
- 7.5.1: Control of production and service provision
- 7.5.2: Validation of processes for production and service provision
- 7.5.3: Identification and traceability
- 7.5.5: Preservation of product
- 7.6: Control of monitoring and measuring devices
- 8.2.3: Monitoring and measurement of processes

8.2.4: Monitoring and measurement of product

8.3: Control of nonconforming product

8.5.2: Corrective action

In addition to the ISO clauses above, an auditor conducting a pre-license inspection will look for evidence that the following production tests are being performed by a manufacturer on 100% of those medical devices bearing the INMETRO mark:

- Leakage current (earth, enclosure, patient) (Clause 19 of IEC 60601-1)
- Earthing (protective/functional and potential equalization) (Clause 18 of IEC 60601-1)
- Dielectric strength (Clause 20 of IEC 60601-1)
- Functional test

3: Certification and Product Marking

After a certification body has completed its review of test reports and user manuals as well as its pre-license factory inspection and has determined that a device and the device

manufacturer are compliant with all applicable requirements, the certification body issues an INMETRO certificate.

An INMETRO certificate is valid for five years, and evidence of the certification is published in INMETRO’s directory of approved products. In addition, evidence of certification may also be published by the certification body in its own directory of approved products.

At the end of a certification process, an applicant is authorized to use certification marks to demonstrate a device’s compliance (examples of marks issued by UL are shown in Figure 1). These marks should be placed on both the approved medical device and on the product packaging. The orange-colored, rectangular mark should be a minimum of 50 mm in size. The black and white marks with the wording INMETRO and OCP-0029 should be at least 22 mm. The smallest mark with the word SEGURANÇA should be at least 11 mm. These two smaller marks are used only in cases where there is insufficient space for the largest rectangular mark. The certification body should provide instructions for appropriate use of the certification marks as well as artwork for printing purposes.



Figure 1: INMETRO Certification Marks

Annual Inspection

Like most other product certification systems, maintaining an INMETRO certification requires certain periodic activities. For an approved medical device to remain INMETRO certified for the full five year certification period, a manufacturer's facility is subject to annual surveillance inspections. An annual INMETRO inspection should take place approximately 12 months after the original certification has been issued and at succeeding 12 month intervals for the duration of the certification period. For example, for a certification originally issued in November 2010, the first annual surveillance inspection would be conducted around November 2011, and again in November 2012, November 2013 and November 2014.

When a certification body has locally qualified staff and facilities, the annual INMETRO surveillance inspections can be conducted by local assessors. The scope of these annual maintenance inspections is the same as the pre-license inspection conducted at the beginning of the certification process.

Recertification

As previously mentioned, the INMETRO certificate is valid for a period of five years, after which a device must be recertified. If a certificate holder wishes to renew a medical device certification for additional five year term, a device needs to be fully retested by any laboratory able



to issue CB Test Reports or that is ILAC accredited. A device needs to be retested even if its design is unchanged since the initial product approval.

Other Issues and Concerns

Most safety certifications provide testing to a base standard and applicable particular standards. ANVISA requires products to be tested to most of the particular and collateral standards, including IEC 60601-1-2 (EMC) and IEC 60601-1-4 (software).

Companies that do not comply with the approval requirements for medical devices can face severe penalties, from financial assessments to the confiscation of unapproved products. Customs officials in Brazil will only authorize the importation of products after consulting with ANVISA's approved products database to ensure that a product has been properly registered. In case of doubt, customs officials will typically hold all products at an owner's expense until registration and certification can be verified.



Conclusion

The current size and anticipated continued growth of the Brazilian market presents significant opportunities for manufacturers of medical devices. Brazil's regulatory approval scheme for medical devices is similar to that found in other countries. In addition, Brazil relies on national versions of widely accepted international standards to assess product compliance.

Despite these similarities, the length of time between filing an application for a registration of a medical device and the final government approval can be lengthy. The International Trade Administration of the U.S. Department of Commerce estimates that it can take as little as three months or as long as two years to achieve product registration, depending on the type of submission to ANVISA, i.e., new registration, update or revalidation.⁵

Medical device manufacturers can ease the process of gaining access to this lucrative market by understanding the similarities and differences between Brazil's medical device approval scheme and the schemes used in other major markets. Staying informed of anticipated changes in regulations can provide valuable time to develop alternative plans and strategies for gaining and maintaining market access. Finally, working with an experienced and knowledgeable accredited certification body in Brazil such as UL can smooth the compliance process and mitigate setbacks from unanticipated issues and challenges.

For more information about the "Approval of Medical Devices in Brazil" white paper, please contact Tara Kambeitz, global marketing manager – Health Sciences at Tara.L.Kambeitz@us.ul.com.

¹ U.S. Department of Commerce, International Trade Administration, "Healthcare Technologies Resource Guide – A Reference for US Exporters to World Markets," 2009-2010 edition.

² Brazil Resolution RDC No. 185, October 22, 2001, http://www.anvisa.gov.br/legis/resol/2001/185_01rdc.htm (last accessed on June 10, 2011).

³ www.anvisa.gov.br/eng/legis/law_9782.htm

⁴ A full description of ANVISA's structure and responsibilities is available at <http://www.anvisa.gov.br/eng/institution/index.htm> (last accessed on June 11, 2011).

⁵ "Medical Device Regulatory Requirements for Brazil, International Trade Administration," U.S. Department of Commerce, updated March 2011, <http://www.ita.doc.gov/td/health/brazilmdprofile.pdf> (last accessed on June 10, 2011).

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