



BSI Transitions

In Vitro Diagnostic Regulation



IVDR Documentation Submissions

Best Practices Guidelines

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1 Introduction

Prior to placing a device on the market, manufacturers shall undertake an assessment of the conformity of that device, in accordance with the applicable conformity assessment procedures set out in Annexes IX to XI of (EU) 2017/746 In Vitro Diagnostic Regulation (IVDR).

The application documentation described in this document is aligned with the requirements of (EU) 2017/746 In Vitro Diagnostic Regulation (IVDR) for Quality Management System Assessment, described in detail in Annex IX section 2 and Annex XI section 3 of the IVDR.

The technical documentation submission guidance is aligned to the requirements of the IVDR, described in detail in Annex II.

The Notified Body BSI (BSI-UK / BSI-NL) and IVD manufacturers both have an interest in speeding up the review of Technical Documentation (Summary of Technical Documentation (STED), dossier, technical file, renewal application, etc.) and reducing time to certificate decision.

The two most frequent reasons for delays to technical documentation reviews are:

- BSI has not been provided with all of the information needed for the review;
- The information is present within the technical documentation, but is difficult to locate.

To reduce the frequency of the above issues, BSI Medical Devices Group proposes the following guidelines, informally known as "IVDR Documentation Submissions: Best Practice Guideline".

2 Initial application package for Quality Management System

For application under IVDR Annex IX, the manufacturer's application shall contain a defined set of information and documentation:

- the name of the manufacturer and address of its registered place of business and any additional manufacturing site covered by the quality management system, and, if the manufacturer's application is lodged by its authorised representative, the name of the authorised representative and the address of the authorised representative's registered place of business,
- Note: After the SRN system has been implemented, the manufacturer shall use the Single Registration Number (SRN) when applying to a notified body for conformity assessment and for accessing EUDAMED in order to fulfil its obligations under IVDR Article 26 "Registration of Devices".
- all relevant information on the device or group of devices covered by the quality management system,
- a written declaration that no application has been lodged with any other notified body for the same device- related quality management system, or information about any previous application for the same device- related quality management system,
- a draft of an EU declaration of conformity in accordance with Article 17 and Annex IV for the device model covered by the conformity assessment procedure,
- the documentation on the manufacturer's quality management system,

- a documented description of the procedures in place to fulfil the obligations arising from the quality management system and required under this Regulation and the undertaking by the manufacturer in question to apply those procedures,
- a description of the procedures in place to ensure that the quality management system remains adequate and effective, and the undertaking by the manufacturer to apply those procedures,
- the documentation on the manufacturer's post-market surveillance system and, where applicable, on the post-market performance follow-up (PMPF), and the procedures put in place to ensure compliance with the obligations resulting from the provisions on vigilance set out in Articles 82 to 87,
- a description of the procedures in place to keep up to date the post-market surveillance system, and, where applicable, the PMPF, and the procedures ensuring compliance with the obligations resulting from the provisions on vigilance set out in Articles 82 to 87, as well as the undertaking by the manufacturer to apply those procedures,
- documentation on the performance evaluation plan,
- a description of the procedures in place to keep up to date the performance evaluation plan, taking into account the state of the art, and
- The application will include the technical documentation referred to in Annex II for each device to be covered under a product-specific certificate. For devices that do not require a product specific certificate, the technical documentation referred to in Annex II for the devices selected on a representative basis by BSI.

3 Submission and Technical Documentation contents

Three things are required for any technical review:

- Context (i.e., an explanation of what is being requested and why),
- The technical documentation itself (i.e. objective evidence to demonstrate compliance),
- Authorisation for BSI to carry out the work.

The submission should therefore contain:

3.1 Cover letter

The cover letter should contain an executive summary containing at least the following details:

- CE Certificate # reference(s) (if known)
- The type of review (new product, design change, shelf life extension, etc.)
- Brief product description, including classification (with Rule according to Annex VIII), conformity assessment route requested, analytes and technology involved.
- BSI Ref. # (Service Management Order (SMO) #) for any other relevant submissions (for example, concurrent applications that may affect the submission)

- An explanation of:
 - what has been submitted and how it demonstrates compliance and, for changes to existing certification:
 - what is affected (packaging, material change, life, etc.),
 - what is not affected (along with appropriate justification).

Note: a possible format for this explanation could be a table based on the sections of the technical documentation, as below:

Technical Documentation section	A/NA?	Description of evidence submitted; for changes, impact on compliance or rationale for why this section is not affected
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3.2 The Technical Documentation

To assist manufacturers in determining the correct information to provide to BSI, guidance is provided in **Attachment A**. Associated reference documents are listed in Attachment B for additional guidance.

Please note that, as far as is practical, submissions should be “stand alone”, and not refer to previous submissions for evidence of compliance. The reviewer must be able to assess the documentation in the context of the intended submission, and confirm that it is still relevant within this context. If a submission draws upon information previously submitted to BSI, please include the relevant report or document which demonstrates compliance, rather than directing the reviewer to the earlier review. This will save time (e.g., in finding the report, confirming that the correct report has been found, confirming whether or not there have been any changes affecting its relevance to the current application, etc.).

3.3 Authorisation for the work to be conducted

The following will be required before work can commence:

- A signed approved quote,
- or
- A signed BSI Work Authorisation form* (for existing clients and certificates only).

*Form MDF4510, MDF4511, MDF4512, MDF4513 or MDF4514 depending on the location of the legal manufacturer (UK, US, Euro, Canada or China respectively).

4 Verification of performance

For Class D devices (and others if requested), kits will be required for testing by an EU Reference Laboratory (EURL) to verify performance. This will be discussed in more detail upon application.

5 Information required to support verification of manufactured product (Class D only)

For Class D products criteria setting is required; this is carried out in parallel to the documentation review. The following will be required:

- Batches of product have to be sent to the EU Reference Laboratory to establish criteria.
- These batches must meet the manufacturers QC specification and be in the same configuration as the technical documentation submitted, with components clearly labelled with name, lot number and expiry date, and final draft IFU.
- On-going batch release will require the following documentation:
- The final QC release testing for that batch performed by the manufacturer
- Labelling (component and box labels as on the batch including lot number and expiry and IFU)

This will be discussed in more detail upon application.

6 Submission method

- **The preferred route for submissions is via the secure BSI document upload portal.** If you do not have access to the BSI document upload portal, please contact your Scheme Manager or their administrative support to request for this to be set up for your company. Alternatively, documents may be submitted by email. This route is normally only feasible for small submissions requiring relatively few documents of small file size.
- **We DO NOT need to receive a hard copy of the information.** If hardcopies are received in lieu of electronic files, these will need to be converted to the format described in section 4 below by our administration team. This will add time and cost to the review.

7 Document format

7.1 Language

- The official language of BSI is English, and all submitted Technical Documentation and test results should be in the English language. Technical Documentation in other languages may result in additional review time and costs for translation which will be passed on to the applicant, and subject to BSI terms covering costs.
- Whilst the technical assessments may be conducted in a local language (if the assessor has the appropriate language skills), for any assessment documentation produced in the local language, there must be an equivalent and full set of assessment documentation in English also available.
- Technical documentation for Class A devices which are placed on the market in a sterile condition or defined microbiological conditions may be accepted in another EU language as long as the Competent Authority does not require Technical Documentation to be in a

prescribed language and that BSI is able to allocate quality system and/or microbiology auditors with correct competencies and language capabilities.

7.2 Electronic File Format

7.2.1 Format and file size limits

- **Documents should ideally be provided as paginated, fully searchable bookmarked PDF files** (see section 5.2.2 and 5.2.3 below for further information on text recognition and bookmarks). Other software formats may be acceptable, but again, these files will need to be converted to PDF files with bookmarks, which will add time and cost to the review. Significant delays may result if files cannot be easily converted to this format.
- **PDF files and attachments should not be file protected or locked as this prevents necessary access and file manipulation for archiving.**
- **Documents should be bookmarked to ensure ease of navigation** (see section 5.2.3 below for more information relating to bookmarking).
- **It is helpful if document groups (e.g. stability, risk management etc.) are collated into a single document or document portfolios if possible.** If this is not possible due to file size, the submission should be collated into the smallest number of individual files possible. Separate submissions will need to be indexed and consolidated, which may add to the time and cost of the review.
- If the information is uploaded to the website as multiple separate small file size documents, these may be processed into one PDF file. To aid this process, please indicate the order in which the documents should be compiled. A logical numbering of files is preferred (e.g. using 1, 2, 3...at the beginning of the title of each file).
- Once BSI has the information, we will make any adjustments as necessary (e.g. Optical character recognition (OCR) it, bookmark it, paginate it and add headers and footers as required). The marked-up PDF becomes the final archived version.

7.2.2 Optical Character Recognition (searchable format)

- Manufacturers scanning directly from a printed page should utilize Optical Character Recognition (OCR) so that as much of the resultant PDF file is as searchable as possible.
- Non-searchable submissions will be subjected to OCR conversion adding review time.

7.2.3 Bookmarks

Bookmarks are requested to aid in locating major sections of the technical document. At a minimum, sections in IVDR Annex II “Technical Documentation” (or the Global Harmonisation Task Force Summary Technical Documentation GHTF STED sections) should be bookmarked.

- Sometimes random bookmarks based on document headings and subheadings are created when documents are converted to PDF format. These bookmarks should be edited to provide clear document references and to remove excessive, unnecessary or confusing bookmarks.

Clear organisation and easy navigation will make it easier to find documents and will therefore reduce overall time required for the review.

7.2.4 Pagination

- Each page of the submission should have a separate, sequential page number, starting with 1. It doesn't matter how many pages, volumes, or binders are submitted – each page should have a unique number.
- PDF files are automatically numbered. When referencing page numbers, please be clear as to whether the original dossier page or the PDF file page is being used.
- Pagination is not mandatory, as BSI can add this with our software. Documents received without proper pagination however will incur added review time to properly format.

7.2.5 Signatures

Signatures are required for any signed document in the file, including BSI Work Authorisation Forms and signed quotes. Signatures can be handled in a number of ways:

- Documents may be digitally signed.
- Signature pages can be scanned in and inserted into the electronic document.
- A 'marker page' can be inserted into the document indicating that the signatures have been provided separately to BSI, either electronically or by fax. BSI will scan and insert these pages into the file, logging the time to do so.

7.3 Submission Process

The following is an overview of the submission process:

- a) Notify BSI that you have an application for review. For new clients, this will generally be via a member of the sales team (<https://www.bsigroup.com/en-GB/medical-devices/forms/contact-us/>) For existing clients, this will be your Scheme Manager, or a member of the administration team. Email and phone are the preferred means of contact.
- b) If a Work Authorisation Form is required, ensure that the form is signed, dated, and completed with the following details:
 - Company Name and Title of Submission
 - Details of the certificate(s) affected (certificate numbers starting with CE for IVD).
 - Appropriate box ticked to indicate review rate required (Standard/Fast Track)
- c) Once the signed approved quote or Work Authorisation Form (see Section 2.3 above) has been submitted, BSI can assign a reviewer. At that time BSI will assign a unique identification number ("SMOxxxxx") for your review and contact you with that number. We ask that you reference those numbers in any email correspondence with BSI during the review process.
- d) The review process will begin upon receipt of the submission (Section 2) AND the signed BSI Work Authorisation Form/signed quote.

Additional topics to consider when preparing technical documentation for submission

8 Manufacturer Personnel Support

Please ensure appropriate manufacturer resources (RA, QA, R&D, Manufacturing, etc) are available during On-site or Dedicated reviews. The more quickly information can be provided, the more quickly questions can be closed and certificates issued.

9 Document Availability

If a “pointer system” is used for technical documentation, ensure key documents are made available to the reviewer/auditor at the time of the initial submission. If these documents are not provided, much of the first round of questions may be devoted to asking for them, which will delay the start of the full review. Please remember that the reviewer must see the manufacturer’s conclusions regarding compliance, as well as the objective evidence necessary to support those conclusions.

10 Certificate Scope

Sometimes the addition of new products, or even changes to existing products, can affect the scope of the associated Quality Management System (QMS) certificate (e.g., Annex IX certificates). If the scope(s) of the existing certificate(s) does not cover the analyte, product or technology, additional work and time will be required to re-issue the affected certificates:

- Sufficient evidence must be reviewed to support scope change; this may require QMS audits or Microbiology audits in addition to the Technical documentation review requested.
- If in doubt, discuss the scope with the BSI Scheme Manager prior to submitting. The Scheme Manager will coordinate the scope change activities.

11 Sub-contractors

Are there any changes to sub-contractors related to the application?

- All significant sub-contractors/crucial suppliers must be added to associated QMS certificate(s) and the Unannounced Audit Visit schedule, so please ensure that your Scheme Manager and reviewer are aware of any changes. If you are unsure whether a sub-contractor/supplier is significant, discuss with your Scheme Manager.
- Significant sub-contractors/crucial suppliers that do not hold a valid ISO 13485 certificate issued by an EU Notified Body or one of its direct subsidiaries (e.g. TUV Americas) may require a sub-contractor audit, depending on the scope of their activities and the verification activities undertaken by the manufacturer. There may be instances where a verification visit is needed, even if they hold ISO 13485 certification from a Notified Body. Please ensure that these details are made clear in the application.
- If design is sub-contracted, control of this sub-contracted activity must be considered.

12 Accessories

Please provide the following information for any accessories associated with your device:

- Brief description of the accessory/accessories and how they are used with the device(s)
- Classification of the accessories and rationale for classification
- Technical Documentation references (file name, issue status, date)

13 Novelty

Are any new technologies (or analytes) associated with the IVD? If so this may require additional time. BSI reviewers will still work within timescales indicated for the review process selected, but external consultations may not fall within these timescales, and therefore Fast Track / Dedicated review timelines cannot be guaranteed. Please discuss with your Scheme Manager, to select the most appropriate review option.

14 Additional considerations for desktop audits

Surveillance audits may take place on-site or as a remote “desktop” audit. In an on-site audit, auditors can easily request additional documents or ask questions in real time, but for desktop audits, it is important that all necessary information is included to avoid delays once the reviewer has set aside time to review the file.

Please provide the following information for technical file desktop audits:

- Main technical file body as well as key supporting documents or attachments. In general, if a document is listed as evidence in the Checklist for the General Safety & Performance Requirements, the reviewers may expect to review that document as evidence of compliance with the General Safety & Performance Requirements;
- Manufacturer’s current number of employees;
- A summary of any changes to the device since the last technical file audit;
- Information on engagement with any global regulatory bodies in respect of legal compliance or other issues;
- Information on any changes to the quality system or management.

Additional review time may be required in the following cases:

- Technical Documentation File with poor traceability or incomplete information

ATTACHMENT A: Information to Provide in a Technical Documentation Submission

Administrative information	
Manufacturer name and address	<p>The application should identify the name and location of the legal manufacturer who is placing the devices on the market. This should be consistent across the device labels, IFU and Declarations of Conformity. The Single Registration Number (SRN) of the legal manufacturer should be identified.</p> <p>Referred to in IVDR EU 2017/746 Article 10</p>
Authorised Representative & Sub-contractors	<p>The name and location of the Authorised Representative should be identified. Only one EU Representative should be identified, and this should be consistent across the device labels, IFU and Declarations of Conformity. The Single Registration Number (SRN) of the EU Authorised Representative should be identified.</p> <p>Referred to in IVDR EU 2017/746 Article 11</p>
Person Responsible for regulatory compliance	<p>The application should identify the name of the person responsible for regulatory compliance for manufacturer and Authorized Representative (if applicable i.e. manufacturer outside Europe).</p> <p>Referred to in IVDR EU 2017/746 Article 15</p>
File date and issue number	<p>Title of file, revision history should be provided. Individual documents should also indicate date, revision history and status.</p>
Declaration of conformity	<p>The application should include a copy of the Declaration of conformity (draft where applicable). The EU Declaration of Conformity should include all of the information listed in IVDR Annex IV.</p>
Description of submission	<p>The application should clearly state if it is a new certification or scope extension (including changes to design, indications for use etc.) and list any previous related submissions.</p>
Regulation	<p>Please indicate which regulation applies.</p> <p>If the device contains a medical device e.g. Lancet or swab, please confirm if this has been reviewed under the medical device regulation.</p>

Technical Documentation - Refer to IVDR EU 2017/746 Annex II	
Device description and specification	<p>The device description should enable understanding of the design and composition and presentation or other characteristics of the device and should include product or trade name and a general description of the device including its intended purpose and intended users.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
UDI-DI	<p>The submission should include the Basic UDI-DI assigned by the manufacturer to the device, as soon as identification of this device becomes based on a UDI system or otherwise a clear identification by means of product code, catalogue number or other unambiguous reference allowing traceability.</p> <p>Refer to IVDR EU 2017/746 Annex VI part C</p>
Summary of Safety and Performance	<p>For Class C & D devices the summary of safety and performance should be provided.</p> <p>Refer to IVDR EU 2017/746 Article 29</p>
Intended purpose	<p>The intended purpose should provide sufficient detail to explain:</p> <ul style="list-style-type: none"> • What is to be detected and/or measured, and whether it is qualitative, semi-quantitative or quantitative. • Its function (i.e. screening, monitoring, diagnosis or aid to diagnosis, prognosis, prediction, companion diagnostic). • How the result relates to a diagnosis including any specific disorder, condition or risk factor of interest that it is intended to detect, define or differentiate. • It should include the basic principles of operation (i.e. intended users and environment, whether it is automated or not and the type of specimen(s) required). • The intended patient population of the device. For companion diagnostics also include the relevant target population and the associated medicinal product(s). <p>Please ensure the intended use been described consistently throughout the file (e.g. in the IFU, risk management documentation, performance evaluation report and design requirements).</p> <p>If the application includes a change to the intended use, all sections of the file should be reviewed for potential impact. For clarity it is suggested that this should be separate from the device description.</p> <p>Refer to IVDR EU 2017/746 Annex I 20.4.1</p>

Principle of the assay or the principles of operation	<p>The submission should include the description of the principle of the assay method or the principles of operation of the instrument.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Rationale for the qualification of the product	<p>The submission should include confirmation and rationale for the device falling under the Scope of the IVDR.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Classification	<p>The submission should include the classification of the device including the justification for the classification rule(s) applied.</p> <p>Refer to IVDR EN 2017/746 Annex VIII</p>
Components and reactive ingredients	<p>The submission should include a description of the components and where appropriate, the description of the reactive ingredients of relevant components such as antibodies, antigens, nucleic acid primers.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Specimen collection and transport materials	<p>The submission should include, where applicable, a description of the specimen collection and transport materials provided with the device or descriptions of specifications recommended for use.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Instruments of automated assays	<p>The submission for instruments of automated assays should include the description of the appropriate assay characteristics or dedicated assays.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Automated assays	<p>The submission for automated assays should include a description of the appropriate instrumentation characteristics or dedicated instrumentation.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Software	<p>The submission should include a description of any software to be used with the device, either as an integral part, or associated with the device in order for its safe use.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>

Configurations/ variants of the device	<p>The submission should include a description or complete list of the various configurations/variants of the device that are intended to be made available on the market.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Accessories /used in combination	<p>The submission should include a description of the accessories for a device, other devices and other products that are not devices, which are intended to be used in combination with the device.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.1</p>
Reference to previous and similar generations of the device	<p>The submission should include an overview of the previous generation or generations of the device produced by the manufacturer, where such devices exist and an overview of identified similar devices available on the Union or international markets, where such devices exist.</p> <p>Refer to IVDR EU 2017/746 Annex II 1.2</p>
Information to be supplied by the manufacturer	<p>The submission should include a complete set of:</p> <ul style="list-style-type: none"> • Labels on the device and on its packaging, such as single unit packaging, sales packaging, transport packaging in the case of specific management conditions. • Instructions for use and any material in which claims are made. • For Self-test and near patient testing devices clear demonstration where conformity to the specific requirements. <p>Refer to IVDR EU 2017/746 Annex I chapter II and III</p>
Design information	<p>The submission should include the information to allow the design stages applied to the device to be understood and shall include:</p> <ul style="list-style-type: none"> • A description of the critical ingredients of the device such as antibodies, antigens, enzymes and nucleic acid primers provided or recommended for use with the device. • For instruments, a description of major subsystems, analytical technology such as operating principles and control mechanisms, dedicated computer hardware and software; • For instruments and software, an overview of the entire system; • For software, a description of the data interpretation methodology, namely the algorithm;

	<ul style="list-style-type: none"> For devices intended for self-testing or near-patient testing, a description of the design aspects that make them suitable for self-testing or near-patient testing. <p>Refer to IVDR EU 2017/746 Annex II 3.1</p>
<p>Manufacturing information</p>	<ul style="list-style-type: none"> A detailed overview of the manufacturing processes should be provided. This information should allow the manufacturing processes such as production, assembly, final product testing, and packaging of the finished device to be understood. More detailed information shall be provided for the audit of the quality management system or other applicable conformity assessment procedures. This should include the identification of all sites, including crucial suppliers and significant sub-contractors, where manufacturing activities are performed. The name and location of key design and manufacturing sub-contractors should be provided e.g. perform final release testing, instrument manufacturers, software development. If significant sub-contractors/crucial suppliers are used, provide copies of their ISO 13485 certificates. If a sub-contractor/supplier does not have an ISO 13485 certificate from a Notified Body, additional supplier audits may need to be arranged and should be discussed during application. If they hold ISO 13485 certification from a Notified Body, there may be instances where BSI would still need to perform a verification visit. <p>Refer to IVDR EU 2017/746 Annex II 3.2</p>
<p>General safety and performance requirements (GSPRs)</p>	<p>It is helpful to provide a checklist against the GSPRs, or other documented method to provide evidence of conformity to each requirement.</p> <p>The submission should include the information that demonstrates conformity with the general safety and performance requirements set out in Annex I that are applicable to the device taking into account its intended purpose, and shall include a justification, validation and verification of the solutions adopted to meet those requirements. The demonstration of conformity shall also include:</p> <ul style="list-style-type: none"> The precise identity of the controlled documents offering evidence of conformity with each harmonised standard, Common Specifications (CS) or other method applied to demonstrate conformity with the general safety and performance requirements. The information referred to under this point shall incorporate a cross-reference to the location of such evidence within the full technical documentation and, if applicable, the summary technical documentation. The general safety and performance requirements that apply to the device and an explanation as to why others do not apply.

- The method or methods used to demonstrate conformity with each applicable general safety and performance requirement.
- The harmonised standards, CS or other solutions applied.

Refer to IVDR EU 2017/746 Annex I and Annex II 4.

Benefit : Risk analysis and risk management

A thorough design and process Risk Management assessment should be a continuous iterative process throughout the entire life-cycle of the device, requiring regular systematic updating.

The risk management documentation should include:

- A risk management plan for each device.
- Identification and analysis of the known and foreseeable hazards associated with each device.
- Estimation and evaluation of the risks associated with, and occurring during, the intended use and during reasonably foreseeable misuse.
- Elimination or control of the risks identified (refer to IVDR EU 2017/746 Annex I, section 4).
- Evaluation of the impact of information from the production phase and, in particular, from the post-market surveillance system, on hazards and the frequency of occurrence thereof, on estimates of their associated risks, as well as on the overall risk, the benefit-risk ratio and risk acceptability.
- Based on the evaluation of the impact of the information, if necessary, amend control measures in line with the requirements of (refer to IVDR EU 2017/746 Annex I, section 4).

The risk management documentation should provide a template for preparedness, indicating whether controls (i.e. process validations, performance evaluation, stability, usability or other key verification / validation tests) have reduced all risks as low as possible (vs. as low as reasonably practicable) to acceptable levels in light of state-of-the-art for the product(s) under review.

The assessment must demonstrate that all known and foreseeable risks, and any undesirable effects shall be minimised and be acceptable when weighed against the evaluated potential benefits to the patients and/or the user arising from the intended performance of the device during normal conditions of use.

A copy of Risk Management Procedure(s) that include the definition of any rating systems used for risk analysis and risk acceptability should be provided

For devices based upon existing devices, the manufacturer may conclude that pre-existing risk management documentation is applicable. However, there are always risks associated with even small changes, and a summary to demonstrate that these risks have been considered (and have been adequately mitigated) should be provided.

Guidance on Risk management Process is available in EN-ISO 14971- Medical devices -
- Application of risk management to medical devices

<p>Product verification and validation</p>	<p>The submission should include the results and critical analyses of all verifications and validation tests and/or studies undertaken to demonstrate conformity of the device with the requirements of the Regulation and in particular the applicable general safety and performance requirements. Device claims may be made in the IFU, labelling or any other material e.g. on websites etc.</p> <p>For further detail refer to IVDR EU 2017/746 Annex I, section 9.1 and Annex II, section 6.</p> <p>This should include the following:</p> <ul style="list-style-type: none"> • Analytical sensitivity, analytical specificity, trueness (bias), precision (repeatability and reproducibility), accuracy (resulting from trueness and precision), limits of detection and quantitation, measuring range, linearity, cut-off, including determination of appropriate criteria for specimen collection and handling and control of known relevant endogenous and exogenous interference, cross- reactions; • The submission should include the analytical performance report referred to in IVDR EU 2017/746 Annex XIII.
<p>Performance Evaluation and Performance Studies</p>	<p>The submission should include the Performance Evaluation and Performance studies this will include:</p> <ul style="list-style-type: none"> • Performance Evaluation Plan (Annex XIII section 1.1) • Scientific Validity Report (Annex XIII section 1.2.1) • Analytical Performance Report (Annex XIII section 1.2.2) • Clinical Performance Report (Annex XIII sections 1.3.1 and 2.3.3) including: <ul style="list-style-type: none"> ○ Clinical Performance studies (Annex XIII 2.) ○ Scientific peer-review ○ Published experience gained by routine diagnostic testing. • If performed, the Clinical Performance Study Plan (CPSP) (Annex XIII section 2.3.2) <p>Performance Evaluation Report (Annex VIII section 1.3.2) The report will include the individual reports on:</p> <ul style="list-style-type: none"> - Scientific validity - Analytical performance - Clinical performance <p>With an overall assessment of these reports to demonstrate that the intended clinical benefit and that conformity to the applicable GSPRs is achieved under normal conditions of use.</p> <p>Refer to IVDR EU 2017/746 Annex XIII</p>

Stability (excluding specimen stability)	<p>The submission should include the claimed shelf life, in use stability and shipping stability studies.</p> <p>Claimed shelf-life</p> <ul style="list-style-type: none"> • Testing shall be performed on at least three different lots manufactured under conditions that are essentially equivalent to routine production conditions. The three lots do not need to be consecutive. • Accelerated studies or extrapolated data from real time data are acceptable for initial shelf life claims but shall be followed up with real time stability studies. • The information on stability testing studies to support the shelf life that is claimed for the device shall include: <ul style="list-style-type: none"> ○ The study report including the protocol, number of lots, acceptance criteria and testing intervals. ○ Where accelerated studies have been performed in anticipation of the real time studies, the method used for accelerated studies shall be described. ○ The conclusions and claimed shelf life. <p>In-use stability</p> <ul style="list-style-type: none"> • The information on in-use stability studies for one lot reflecting actual routine use of the device, regardless of whether real or simulated. This may include open vial stability and/or, for automated instruments, on board stability. • In the case of automated instrumentation, if calibration stability is claimed, supporting data shall be included. • The information on in-use stability testing studies shall include: <ul style="list-style-type: none"> ○ The study report (including the protocol, acceptance criteria and testing intervals). ○ The conclusions and claimed in-use stability. <p>Shipping stability</p> <ul style="list-style-type: none"> • The information on shipping stability studies for one lot of devices to evaluate the tolerance of devices to the anticipated shipping conditions. • Shipping studies may be done under real and/or simulated conditions and shall include variable shipping conditions such as extreme heat and/or cold. • The information on shipping stability testing studies shall include: <ul style="list-style-type: none"> ○ The study report (including the protocol, acceptance criteria). ○ The method used for simulated conditions. ○ The conclusion and recommended shipping conditions. <p>Refer to IVDR EU 2017/746 Annex II 6.3</p>
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Software verification and validation	<ul style="list-style-type: none"> • The documentation shall contain evidence of the validation of the software, as it is used in the finished device. It shall also address all of the different hardware configurations and, where applicable, operating systems identified in the labelling. • Include IVD software life-cycle documentation and related procedures (e.g. software development plan, software requirements specification, software architecture, software detailed design, software unit testing procedures/reports, software integration testing procedures/reports, software system testing, software maintenance, software risk management, configuration management, problem resolution) • Ensure all relevant harmonised and non-harmonised software standards have been considered (e.g. has the software been developed within an EN62304 compliant software life cycle management system?) <p>Refer to IVDR EU 2017/746 Annex II 6.4</p>
Additional information required in specific cases	<ul style="list-style-type: none"> • In the case of devices placed on the market in a sterile or defined microbiological condition, the submission should include a description of the environmental conditions for the relevant manufacturing steps. In the case of devices placed on the market in a sterile condition, a description of the methods used, including the validation reports, with regard to packaging, sterilisation and maintenance of sterility. The validation report shall address bioburden testing, pyrogen testing and, if applicable, testing for sterilant residues. • In the case of devices containing tissues, cells and substances of animal, human or microbial origin, the submission should include information on the origin of such material and on the conditions in which it was collected. • In the case of devices placed on the market with a measuring function, the submission should include a description of the methods used in order to ensure the accuracy as given in the specifications. • If the device is to be connected to other equipment in order to operate as intended, the submission should include a description of the resulting combination including proof that it conforms to the general safety and performance requirements set out in IVDR EU 2017/746 Annex I when connected to any such equipment having regard to the characteristics specified by the manufacturer. <p>Refer to IVDR EU 2017/746 Annex II 6.5</p>
Companion Diagnostics	<p>The manufacturer of a companion diagnostic shall lodge with the notified body an application for the assessment of the technical documentation.</p>

Submissions that relate to companion Diagnostics have additional requirements. The application shall enable the characteristics and performance of the device to be understood, and shall enable conformity with the design-related requirements of this Regulation to be assessed, in particular, with regard to the suitability of the device in relation to the medicinal product concerned.

In addition the submission should include:

- The International Non-proprietary Name (INN) of the associated medicinal product for which it is a companion test.
- The relevant target population and the associated medicinal product(s).
- The draft summary of safety and performance and the draft instructions for BSI to seek a scientific opinion.

Refer to IVDR EU 2017/746 Annex II 1.1

Additional review resources may be required, including external independent reviewers and/or Competent Authority consultation and/or a European Agency for the Evaluation of Medicinal Products (EMA).

Self-test and near patient testing devices

The submission should clearly demonstrate how the device meets the requirements and should include:

- Test reports, including results of studies carried out with intended users.
- Data showing the suitability of the device in view of its intended purpose for self-testing or near patient- testing.
- Ideally provide an example of the device. Talk to your scheme manager for confirmation/delivery details and return requirements. If the device cannot be provided then pictures of the device should be included.
- The information to be provided with the device on its label and its instructions for use including:
 - The type of specimen(s) required to perform the test (e.g. blood, urine or saliva);
 - The need for additional materials for the test to function properly;
 - Contact details for further advice and assistance.

Refer to IVDR EU 2017/746 Annex I 19, 20.4.2

Technical Standards and Common Specifications

The documentation should demonstrate that all applicable common technical specifications, relevant standards, regulations and guidelines applied, both harmonised and product specific. See **Attachment B** for a link to the list of harmonised standards.

- When identifying applicable standards, indicate if full or partial compliance is being claimed

- Where key standards have not been applied or not been applied in full, appropriate justification should be provided in the technical documentation. A summary or gap analysis regarding ability to comply with associated general safety and performance requirements, and a risk analysis & conclusion of acceptability of any compliance gaps should be provided.

Please indicate if there have been any changes to applicable standards since the technical documentation was last reviewed by BSI. The technical documentation should continue to demonstrate that the files meet the state of the art, including consideration of revised or replaced standards, not applicable for initial applications.

Post market surveillance

The submission should include the post-market surveillance plan. Refer to IVDR EU 2017/746 Annex III for full requirements.

The post market surveillance plan should be a proactive and systematic process to collect any information and allow a correct characterisation of the performance of the devices and allow a comparison to be made between the device and similar products available on the market. It should include effective and appropriate methods and processes to assess the collected data, include suitable indicators and threshold values that shall be used in the continuous reassessment of the benefit-risk analysis and of the risk management.

The post-market surveillance plan should include:

- Information concerning serious incidents, including information from Periodic safety update reports, and field safety corrective actions,
- Records referring to non-serious incidents and data on any undesirable side-effects,
- Information from trend reporting,
- Relevant specialist or technical literature, databases and/or registers,
- Information, including feedbacks and complaints, provided by users, distributors and importers, and
- Publicly-available information about similar medical devices.
- PMPF plan as referred to in IVDR EU 2017/746 Part B of Annex XIII, or a justification as to why a PMPF is not applicable.
- PMPF Evaluation Report.

If the submission relates to an existing CE device, or if there are similar devices / historic versions of the device on market, previous PSURs may be requested.

Periodic Safety Update Report

For devices on the market under the IVDR, manufacturers of Class C and D devices, shall prepare a periodic safety update report ("PSUR") for each device and where relevant for each category or group of devices summarising the results and conclusions of the analysis of the Post-market surveillance data gathered as a result of the post-market surveillance plan.

The PSUR should contain elements of IVDR Article 81.

For Class C and D devices the PSUR should be updated at least annually.

A PSUR should be part of the technical documentation as specified in IVDR annexes II and III.

For Class D devices the PSUR should be submitted to the notified body refer to Article 87.

For Class C devices the PSUR should be available upon request.

ATTACHMENT B: Reference Documents

(**NOTE:** At the time of this revision, there are no guidance documents available on IVDR specific topics. The following will be updated as implementing acts and guidance are issued. These links are intended for reference only. Please ensure that the latest version of the documents is used. Gaps with the IVDR have not been assessed for each guidance, but guidance documents are included here for general additional information on specific topics.)

B1 Change Reporting

- NBOG's Best Practice Guide 2014-3, "Guidance for manufacturers and Notified Bodies on reporting of Design Changes and Changes of the Quality System"
- http://www.doks.nbog.eu/Doks/NBOG_BPG_2014_3.pdf

B2 Regulatory Guidance Organisations

- EC Commission MEDDEV Guidance – various topic
- https://ec.europa.eu/growth/sectors/medical-devices/regulatory-framework_en
- https://ec.europa.eu/growth/sectors/medical-devices/guidance_en
- International Medical Device Regulators Forum (IMDRF) – various topics, access to all GHTF final documents
- <http://www.imdrf.org/>

B3 Specific Topic Guidance

B3.1 Quality management Systems Guidance

- EN-ISO 13485 - Medical devices -- Quality management systems -- Requirements for regulatory purposes

B3.2 Risk Management Guidance

- EN-ISO 14971 - Medical devices -- Application of risk management to medical devices

B3. 3 Standards

- B3.3 EU Harmonised Standards
https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards_en
- BSI Online Standards
<https://bsol.bsigroup.com/>
- ISO Online Standards
<https://www.iso.org/standards.html>

B3.4 Software Guidance

- MEDDEV 2.1/6 - Guidelines on the Qualification and Classification of Stand Alone Software Used in Healthcare Within the Regulatory Framework of Medical Devices
- <http://ec.europa.eu/DocsRoom/documents/17921/attachments/1/translations>

B3.5 Self-tests

- EN 13532 General requirements for in vitro diagnostic medical devices for self-testing
- ISO 15197 In vitro diagnostic test systems -- Requirements for blood-glucose monitoring systems for self-testing in managing diabetes mellitus.



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