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## HMA/EMA guidance document on the identification of personal data and commercially confidential information within the structure of the marketing authorisation application (MAA) dossier

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|--|-------------------|
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See websites for contact details



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## Abbreviations

|        |   |
|--------|---|
| API    | Active Pharmaceutical Ingredient                    |
| CCI    | Commercially Confidential Information               |
| CDMO   | Contract Development and Manufacturing Organisation |
| CMO    | Contract Manufacturing Organisation                 |
| CRO    | Contract Research Organisation                      |
| CTD    | Common Technical Document                           |
| EEA    | European Economic Area                              |
| EMA    | European Medicines Agency                           |
| EPAR   | European Public Assessment Report                   |
| EU     | European Union                                      |
| GCP    | Good Clinical Practice                              |
| HMA    | Heads of Medicines Agencies                         |
| HCP    | Healthcare Professional                             |
| IEC    | Independent Ethics Committee                        |
| INN    | International Non-proprietary Name                  |
| IRB    | Institutional Review Board                          |
| MA     | Marketing Authorisation                             |
| MAA    | Marketing Authorisation Application                 |
| MAH    | Marketing Authorisation Holder                      |
| MCB    | Master Cell Bank                                    |
| MSL    | Master Seed Lot                                     |
| MTB    | Master Transgenic Bank                              |
| MVS    | Master Virus Seed                                   |
| NCA    | National Competent Authority                        |
| PACMPs | Post-Approval Change Management Protocols           |
| PD     | Personal Data                                       |
| PI     | Product Information                                 |
| PIP    | Paediatric Investigation Plan                       |
| PPD    | Protected Personal Data                             |
| QP     | Qualified Person                                    |
| QPPV   | Qualified Person Responsible for Pharmacovigilance  |
| RMP    | Risk Management Plan                                |

WCB

Working Cell Bank

## Definitions

For the purpose of this guidance the following definitions apply:

**Anonymisation:** shall mean the operation performed on personal data (e.g. redaction, masking, randomisation, generalisation) in such a manner that the recipient can no longer attribute the resulting information to a data subject and make it identifiable.

**Applicant/Marketing Authorisation Holder (MAH):** shall mean the natural or legal person(s) or organisation(s) that submitted documents to the European Medicines Agency/National Competent Authority(ies) (EMA/NCA) in the context of applications in support of national, mutual recognition, decentralised or centralised marketing authorisations (MAs) and post-authorisation submissions for existing authorised medicinal products, as well as any person(s) or organisation(s) who own(s) copyright or other intellectual property rights in the submitted documents.

**Commercially Confidential Information (CCI):** shall mean any information which is not in the public domain or publicly available and where its disclosure may undermine the economic interest or competitive position of the owner of the information.

**Contract Research Organisation (CRO):** shall mean a person or an organisation (commercial, academic, or other) contracted by the sponsor to perform one or more of a sponsor's duties and functions.

**Contract Manufacturing Organisation (CMO)/Contract Development and Manufacturing Organisation (CDMO):** shall mean a company having an arrangement under which a manufacturer provides upstream manufacturing and/or development services under contract on behalf of third-party pharmaceutical companies.

**Document:** shall mean any content regardless of its medium (a written document stored electronically or on paper, or an audio, video or audio-visual recording) concerning a matter relating to the structure of the marketing authorisation application (MAA) dossier and documents containing data extracted from the MAA dossier for the purpose of this guidance and other documents related to finalised regulatory procedures.

**Personal data (PD):** shall mean any information relating to an identified or identifiable natural person ("data subject"); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

**Protected Personal Data (PPD):** shall mean any personal data which should be protected from disclosure.

**Pseudonymisation:** shall mean the processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person.

**Sponsor:** shall mean an individual, company, institution or organisation which takes responsibility for the initiation, for the management and for setting up the financing of a clinical trial.

**Third party:** shall mean any natural or legal person, or any entity outside EMA/NCA, including European Union (EU) or non-EU institutions and bodies, applicants/marketing authorisation holders (MAHs), sponsors and third countries.

This guidance document is intended to be applicable to information/documents pertaining to the **initial marketing authorisation application (MAA) dossiers, or any variations thereof, of medicinal products for human use for which the regulatory procedure has been finalised**, under the national, mutual recognition, decentralised and centralised procedures. "Finalised" shall mean that the marketing authorisation (MA) has been granted or refused or that the application has been withdrawn.

By extension, the principles laid down in this guidance may be considered for other types of finalised procedures such as orphan designations, Paediatric Investigation Plans (PIPs)/waivers or scientific advice, as applicable. The application of the general principles laid down in this guidance is without prejudice to national rules on transparency. The guidance should be read in conjunction with the relevant applicable legislation and case law on transparency and data protection.

## 1. Scope and purpose

In 2023, the Heads of Medicines Agencies (HMA) and the European Medicines Agency (EMA) agreed to update the guidance which had been adopted in 2012 defining the common approach on what should be considered personal data (PD) and commercially confidential information (CCI) in the MAA dossier of medicinal products for human use. Based on the experience gained by applying the principles set out in the first version of this guidance document in 2012, it became apparent that the guidance and its annex needed to be updated. The objective remains to continue facilitating a common and consistent approach across the European Economic Area (EEA) by providing guidance on the identification of PD that must be protected and considerations on CCI included in the MAA dossier in the frame of transparency obligations.

This guidance document is intended to apply to information/documents on medicinal products for human use, for which the regulatory procedure has been finalised under the national, mutual recognition, decentralised and centralised procedures.

By extension, it is also intended to cover documents concerning the variation(s) of the MA, or documents containing information pertaining to the MAA dossier or documents linked to the aforementioned applications.

When it comes to the disclosure of information/documents, the decision lies with the EMA/NCA. Third parties shall be informed or consulted, as needed, depending on respective national and European legal frameworks.

This guidance addresses the shared approach to be taken, as high-level principles, when providing access to different information/documents in the MAA dossier and follows the structure of the Common Technical Document (CTD) according to Volume 2B Notice to Applicants Medicinal products for human use (or equivalent for dossiers that follow a structure before CTD).

It is intended to be a consensus document agreed by the whole network of NCAs of the EEA for the disclosure of information/documents regarding medicinal products for human use (i.e. not applicable to medicinal products for veterinary use or medical devices) and it lays down practical orientations for national and European authorities regarding the disclosure of the MAA dossier while providing adequate protection for CCI and PD. Notwithstanding this guidance document, it should be noted that EMA/NCAs have to follow their European/national legislation on transparency and data protection (pursuant to Regulation (EU) 2016/679, Regulation (EU) 2018/1725 and any other relevant national data protection legislation applicable to NCAs, respectively).

In the following sections, the agreed principles on PD and CCI are presented, including guidance on whether such information can be disclosed.

Any information identified as PD or CCI must be subject to a preliminary review by the EMA/NCA prior to the possible disclosure of the information/documents.

## **2. Principles on the protection of personal data (PD)**

The protection of PD is enshrined in EU legislation; it is a fundamental right of EU citizens. In compliance with the applicable European/national legislation, PD should be anonymised in order to avoid the disclosure of the information/documents undermining the privacy and integrity of any individual.

Each assessment performed by the EMA/NCA is carried out in compliance with Regulation (EU) 2018/1725, Regulation (EU) 2016/679 and national data protection provisions as applicable, in order to minimise the risk of re-identification of the individual by anonymising data elements which, in combination, could single out an individual. The EMA/NCA applies a risk-based approach to assess which PD elements are to be anonymised from the information/documents in order to limit the risk of re-identification.

PD in the MAA dossier mainly falls into the following categories:

- A. PD related to experts or designated personnel with legally defined responsibilities;
- B. PD related to staff with no legally defined responsibilities;
- C. PD related to participants involved in clinical trials and clinical studies;
- D. PD related to patients in the context of medicine safety.

### ***A. Personal data related to experts or designated personnel with legally defined responsibilities***

In general, it is considered that names of experts or designated personnel with legally defined responsibilities and roles with respect to aspects of the MAA dossier (e.g. qualified person (QP), qualified person responsible for pharmacovigilance (QPPV), investigator/principal investigator, coordinating investigator, sponsor's signatory, etc.) are included in the MAA dossier because they have a legally defined role or responsibility and it is in the public interest to disclose their names. In addition, names of experts or designated personnel with legally defined responsibilities may be considered for anonymisation if it can be demonstrated that the disclosure of such information may present a security risk or affect the integrity of those individuals.

Applicants are advised that non-essential information (e.g. personal address, e-mail address, personal phone number) should not be included in the MAA dossier. If present in the MAA dossier, such PD should be anonymised.

### ***B. Personal data related to staff with no legally defined responsibilities***

The HMA/EMA does not consider that the names or personal details of staff with no legally defined responsibilities such as the staff of the marketing authorisation holder (MAH), the contract research organisation(s) (CRO) and the contract manufacturing organisation(s) (CMO)/contract development and manufacturing organisation(s) (CDMO) need to be included in the MAA dossier. Applicants are therefore advised that such data should not be included in the MAA dossier. If present in the MAA dossier, such PD should be anonymised.

### ***C. Personal Data related to participants involved in clinical trials and clinical studies***

Information on participants involved in clinical trials and clinical studies must be pseudonymised when included in the MAA dossier submitted to competent authorities. Applicants should ensure that the dossier submitted meets the legislative requirements. When submitting the documentation related to clinical trials and clinical studies, the applicant is responsible for trials and studies and for certifying that they have been conducted in accordance with Good Clinical Practice (GCP), including the respect of patient confidentiality according to Principle 2.11 of the Guideline for good clinical practice E6(R2). The confidentiality of records that could identify participants should be protected, respecting the privacy and confidentiality rules in accordance with the applicable regulatory requirement(s).

The applicant remains responsible for compliance with the relevant legislation in cases where such data is inadvertently included in the MAA dossier. In these cases, this data should not be disclosed without being anonymised.

The EMA/NCA applies a risk-based approach to assess which PD elements in the information/documents need to be anonymised in order to limit the risk of re-identification.

### ***D. Personal data related to patients in the context of medicine safety***

In relation to the PD of patients in the context of medicine safety during the post-authorisation phase, the principles outlined in this guidance as well as in the HMA/EMA recommendations on the handling of requests for access to periodic safety update reports (EMA/74133/2009) should be applied.

The EMA/NCA applies a risk-based approach to assess which PD elements in the information/documents need to be anonymised in order to limit the risk of re-identification.

## **3. Principles to be applied for the redaction of commercially confidential information (CCI)**

Information/documents that may contain CCI should be subject to redaction prior to their disclosure. CCI relates to information that is not in the public domain or publicly available, and where its disclosure may undermine the economic interest or competitive position of the owner of the information.

Where the redaction of CCI is proposed by the owner of the information/third party consulted, an assessment of these proposed redactions should be performed by the EMA/NCA, taking into account the justification provided by the owner of the information/third party consulted, in order to decide whether the definition of CCI applies.

Any proposal to consider information as commercially confidential should be properly justified by the owner of the information/third party consulted. This means that an explanation of how access to this proposed information could specifically and actually undermine the economic interest or competitive position of the owner of the information/third party consulted should be provided.

Information that is already in the public domain is not considered to be commercially confidential. However, if information has been in the public domain through a breach of the law, it could still be considered confidential in accordance with the principles of this document. The owner of the information/third party consulted may inform EMA/the respective NCA in writing about the breach of law in accordance with EU/national legislation.

The above principles do not prevent EMA or the NCA (as applicable) from satisfying themselves, by means of a concrete, individual examination of each document in the MAA dossier, whether the document is covered by the exception relating to the protection of CCI.

When assessing a request for access to documents in the context of a policy such as the EMA policy on access to documents, – Policy/0043 (EMA/729522/2016), the existence of an overriding public interest in disclosure may be assessed if the information concerned is found to be commercially confidential.

A statement expressing purely general considerations is not sufficient for the purpose of establishing that an overriding public interest prevails over the reasons justifying the refusal to disclose the information/documents in question. Similarly, a statement expressing vague considerations is not sufficient to establish that the principle of transparency is especially pressing and should prevail over the reasons justifying the non-disclosure of the information/documents concerned.

### **3.1. Information on the Quality and Manufacturing of medicines**

A general principle regarding quality and manufacturing information is that detailed information could be considered commercially confidential but general information should be disclosed.

#### **3.1.1. Composition and product development**

Information related to pharmaceutical development may be considered commercially confidential. This includes detailed data concerning the active substance, formulation, manufacturing, test procedures and validation (see Annex).

The final qualitative formulation (composition) of the finished medicinal product is not CCI.

The names of manufacturers and suppliers of the raw and starting materials, the excipients and the active substance may be considered CCI.

#### **3.1.2. Active substance**

Information concerning the manufacturing of the active substance, including technical and industrial process parameters and in-process/intermediate specifications may be considered CCI. This applies to the final registered process and previous development processes.

Detailed information on the synthesis or manufacture of the active substance, including details on the raw and starting materials, by-products and degradation products of active ingredients and validation of the manufacturing/synthesis process, may be considered CCI.

Information on the structure of the active substance is not commercially confidential. This will be known and published at the time of allocating the international non-proprietary name (INN) if relevant.

Detailed information concerning the particulars of polymorphism and particle size may be considered CCI.

Concerning impurities and degradation products, qualitative and quantitative information may be considered CCI.

A general description of the type of test methods used and the appropriateness of the specification is usually not CCI. However, detailed information on the test methods used and the specification and quantitative acceptance criteria established for the starting materials, intermediates and active

substance may be considered CCI, unless it complies with the monographs in the European Pharmacopoeia or another national Pharmacopoeia.

In addition, for biotechnology products, a general description of the active ingredient including the type of molecule and its general structural features (e.g. number of amino acids, general glycosylation details) or of the type of producer cell (e.g. *E. coli*, *S. cerevisiae*, Chinese hamster ovary cells, Madin Darby kidney cells) is not CCI. Principles of the establishment of the Master Cell Bank (MCB) or Working Cell Bank (WCB) and on the stability of the cell banks are also not considered CCI. Principles of the fermentation and purification process are not CCI, although details including operating parameters and specific material requirements on Master Virus Seed (MVS), Master Seed Lot (MSL) and Master Transgenic Bank (MTB) may be considered CCI.

Details on the process validation of the active substance manufacturing process may be considered CCI, although statements confirming that the manufacturing and control processes have been validated are not CCI.

General information on the characterisation of the active substance such as the analytical technique(s) and statements confirming that the molecule is appropriately characterised are not considered CCI. However, details of characterisation technique(s) may be considered CCI.

In general, storage conditions and shelf life of the active pharmaceutical ingredient (API) are not considered CCI.

The above principles also apply to novel excipients.

### **3.1.3. Finished product**

The detailed description of the manufacturing and control processes for the product may be CCI. This applies to the final registered process and previous development processes.

Details of the validation of the manufacturing process may also be considered CCI.

A general description of the type of test methods used and the appropriateness of the specification is not CCI. Detailed information on the test methods included in the specification of the finished product and the quantitative acceptance criteria may be CCI unless the tests are of Pharmacopoeial standard.

In general, storage conditions and shelf life of the finished products are not considered CCI.

Concerning degradation products, qualitative and quantitative information may be considered CCI.

## **3.2. Non-clinical and clinical information**

Information encompassing non-clinical and clinical development of the medicinal product and the subsequent assessment by competent authorities is not *per se* commercially confidential. This includes information on environmental risk assessments with related studies and risk management plans. In general, data included in clinical study reports can be disclosed once has been anonymised. In exceptional and substantiated cases, consideration will be given to specific elements that may be commercially confidential.

## **3.3. Information on inspections**

Information on the outcome of inspections (e.g. conclusion on compliance/non-compliance/outstanding issues to be addressed) is already available in the public domain (e.g. EudraGMDP and the European Public Assessment Report (EPAR)) and is therefore not considered

commercially confidential. In exceptional cases where inspection-related information and documentation is provided by companies for the purpose of complying with applicable obligations, such information could be considered commercially confidential on a case-by-case basis and in line with the principles laid out in this guidance.

### **3.4. Contractual agreements**

Contractual agreements between companies are generally considered CCI, except for contracts between companies and CROs. Reference to an existing contract with companies responsible for non-clinical and clinical studies, such as CROs, is not regarded as CCI as they may contribute to and be responsible for important information included in the dossier. The names of these CROs are therefore considered to be information which can be disclosed.

### **3.5. Scientific advice**

The disclosure of information on an agreed therapeutic indication should not be considered CCI after the finalisation of the related regulatory procedure. However, all the information related to further developments and new formulations which have not yet been part of a finalised regulatory procedure could be considered CCI.

### **3.6. Handling of copyright information**

The list of references of the publications included in the dossier is not considered CCI and can thus be disclosed. However, if the actual manuscripts are included, these may be subject to copyright of third parties. The EMA/NCA expressly disclaims any liability with regard to possible infringements of third parties' copyrights.

## References

This guidance should be read in conjunction with the documents listed below, as applicable:

- ICH guideline M4 (R4) on common technical document (CTD) for the registration of pharmaceuticals for human use - organisation of CTD (EMA/CPMP/ICH/2887/1999)
- European Medicines Agency policy on access to documents – Policy/0043 (EMA/729522/2016)
- European Medicines Agency policy on clinical data publication – Policy/0070 (EMA/144064/2019)
- HMA/EMA recommendations on transparency: Recommendations on release of information with regard to new applications for medicinal products before and after opinion or decision on granting of a marketing authorisation (EMA/484118/2010)
- Guidance document on how to approach the protection of personal data and commercially confidential information in documents uploaded and published in the Clinical Trial Information System (CTIS) (EMA/212507/2021)
- Guideline for good clinical practice E6(R2) (EMA/CHMP/ICH/135/1995)
- Principles to be applied for the implementation of the HMA/EMA Guidance on the identification of CCI and PPD in MA Applications. (adopted by written procedure on 9 March 2012)
- Recommendations on Transparency - Recommendations on the handling of requests for access to Periodic Safety Update Reports (PSURs) (EMA/743133/2009)
- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)
- Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC

22 November 2024

## Annex: Information that may be considered protected personal data (PPD) and/or commercially confidential information (CCI) in the structure of the marketing authorisation application dossier

This annex lists all the modules of the marketing authorisation application (MAA) dossier based on the agreed common format for applications that are submitted to the European Medicines Agency/National Competent Authority(ies) (EMA/NCA) according to Volume 2B Notice to Applicants Medicinal products for human use (or equivalent for dossiers that follow a structure before CTD).

In each module, a **non-exhaustive list of information** that **may be considered** protected personal data (PPD) or commercially confidential information (CCI) is included. In this list, reference is made to sub-sections A, B, C, D as mentioned in section 2 of this guidance in relation to personal data (PD). The term “Not expected” shall mean that from the nature of the content of the section and based on the experience gained by applying the principles set out in the first version of this guidance document in 2012, PPD or CCI are not likely to be found in the section. However, it is important to remember that any information identified as PD or CCI will need to be assessed according to the aforementioned principles laid down in the guidance. In addition, the assessment of information that may be considered PPD or CCI is without prejudice to national rules on transparency. The Annex should be read in conjunction with the relevant applicable legislation and case-law on transparency and data protection. In addition, in modules which may contain CCI, the third parties will need – if consulted – to provide appropriate justification to explain how the disclosure of the CCI would concretely undermine their commercial or economic interests.

In modules which may contain PPD, a risk-based approach should be applied to assess which PD is to be anonymised in the requested information/documents in order to limit the risk of re-identification of the individuals concerned, in accordance with applicable EU and national provisions, as well as relevant case-law.

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See websites for contact details



## Module 1 – Administrative information and prescribing information

| CTD        | EU CTD                                 | Information that may be considered PPD  | Information that may be considered CCI   |
|------------|--|---|--|
| <b>1.0</b> | <b>Cover letter and annexes</b>        | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p> | Not expected. However, if present, please refer to the appropriate sub-modules herein for guidance.  |
| <b>1.1</b> | <b>Comprehensive table of contents</b> | Not expected  | Not expected. However, if the table of contents provides highly detailed information, CCI may be present. Please refer to the appropriate sub-modules herein for guidance. |
| <b>1.2</b> | <b>Application Form and annexes</b>    | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | Not expected. However, if the annexes provide highly detailed information, CCI may be present.   |

| CTD        | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI  |
|------------|---|---|---|
|            |   | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p> | Please refer to the appropriate sub-modules herein for guidance.                      |
| <b>1.3</b> | <b>Product Information</b>  |   |   |
| 1.3.1      | Summary of Product Characteristics, Labelling and Package Leaflet | Not expected  | Not expected  |
| 1.3.2      | Mock-up   | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | Technical specifications of the packaging such as colour code, font, dimensions, etc. |
| 1.3.3      | Specimen  | Not expected<br><u>B. PD related to staff with no legally defined responsibilities:</u> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> </ul>  |   |

| CTD   | EU CTD                                  | Information that may be considered PPD   | Information that may be considered CCI  |
|-------|---|--|---|
|       |   | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p>   |   |
| 1.3.4 | Consultation with Target Patient Groups | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u><br/>Not expected</p> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> | Not expected. However, if present, please refer to the appropriate sub-modules herein for guidance. |

| CTD        | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI |
|------------|---|---|--|
|            |   | <u>D. PD related to patients in the context of medicine safety:</u><br>Not expected   |  |
| 1.3.5      | Product Information already approved in the Member States | Not expected  | Not expected                           |
| 1.3.6      | Braille   | Not expected  | Not expected                           |
| <b>1.4</b> | <b>Information about the Experts</b>                      | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul><br><u>B. PD related to staff with no legally defined responsibilities:</u> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul><br><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br>Not expected | Not expected                           |
|            |   | <u>D. PD related to patients in the context of medicine safety:</u><br>Not expected   |  |

| CTD        | EU CTD   | Information that may be considered PPD  | Information that may be considered CCI  |
|------------|--|---|---|
| <b>1.5</b> | <b>Specific Requirements for Different Types of Applications</b> |   |   |
| 1.5.1      | Information for Bibliographical Applications                     | Not expected  | Not expected  |
| 1.5.2      | Information for Generic, 'Hybrid' or Bio-similar Applications    | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <p>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <p>Not expected</p> | Not expected. However, if present, please refer to the appropriate sub-modules herein for guidance. |
| 1.5.3      | (Extended) Data/Market Exclusivity                               | Not expected  | Not expected  |
| 1.5.4      | Exceptional Circumstances  | Not expected  | Not expected  |
| 1.5.5      | Conditional Marketing Authorisation                              | Not expected  | Not expected  |

| CTD        | EU CTD   | Information that may be considered PPD  | Information that may be considered CCI  |
|------------|--|---|---|
| <b>1.6</b> | <b>Environmental Risk Assessment</b>                     |   |   |
| 1.6.1      | Non-GMO  | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <p>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <p>Not expected</p> | <p>This section includes quality data that may be considered CCI. Please refer to Module 3 herein for guidance.</p> |
| 1.6.2      | GMO  |   |   |
| <b>1.7</b> | <b>Information relating to Orphan Market Exclusivity</b> |   |   |
| 1.7.1      | Similarity   | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul>   | <p>This section includes quality data that may be considered CCI. Please refer to Module 3 herein for guidance.</p> |
| 1.7.2      | Market Exclusivity                                       |   |   |

| CTD        | EU CTD   | Information that may be considered PPD  | Information that may be considered CCI  |
|------------|--|---|---|
|            |  | <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <p>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <p>Not expected</p> |   |
| <b>1.8</b> | <b>Information relating to Pharmacovigilance</b> |   |   |
| 1.8.1      | Pharmacovigilance System                         | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | <ul style="list-style-type: none"> <li>• Exposure data (patient exposure and sales volume) by country</li> <li>• Projected post-authorisation exposure data</li> <li>• Information on future development plans such as the evaluation of new formulation or the investigation of the effect of the medicinal product in new indications or populations, details on studies which are part of ongoing Paediatric Investigation Plan (PIP), etc.</li> </ul> |
| 1.8.2      | Risk-management System                           | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of Deputy QPPV</li> <li>• Name of employee, consultant or contractor</li> <li>• Name of healthcare professional (HCP)</li> </ul>   |   |

| CTD | EU CTD | Information that may be considered PPD  | Information that may be considered CCI |
|-----|--------|---|--|
|     |        | <ul style="list-style-type: none"> <li>• Name of (vice-)chair, members and alternate members of Institutional Review Board (IRB) and Independent Ethics Committee (IEC)</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The studied indication and prevalence such as rare or non-rare</li> <li>– The studied population such as paediatric, elderly, pregnant, etc.</li> <li>– The number of participants enrolled</li> <li>– The number of sites and countries where the study was conducted</li> <li>– The duration of the study</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> |  |

| CTD | EU CTD | Information that may be considered PPD   | Information that may be considered CCI |
|-----|--------|--|--|
|     |        | <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site number, language, etc.</li> </ul> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>- The type of product such as orphan or non-orphan</li> <li>- The indication and prevalence such as rare or non-rare</li> <li>- The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li>- The post-marketing exposure</li> <li>- The number of countries where the product is marketed</li> </ul> </li> </ul> |  |

| CTD               | EU CTD  | Information that may be considered PPD   | Information that may be considered CCI   |
|-------------------|---|--|--|
|                   |   | <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul>  |  |
| <p><b>1.9</b></p> | <p><b>Information relating to Clinical Trials</b></p> | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of clinical study director</li> <li>• Name of investigators other than the principal investigator</li> <li>• Name of employee, consultant or contractor</li> <li>• Name of HCP</li> <li>• Name of members of CT Safety Monitoring Board or Independent/External Data Monitoring Committee</li> <li>• Names of (vice-) chair, members and alternate members of Institutional Review</li> </ul> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of new formulation, innovative technology or the investigation of the effect of the medicinal product in new indications or populations, details on planned/ongoing studies which are part of a non-completed PIP</li> <li>• Detailed information on contractual agreements</li> </ul> |

| CTD | EU CTD | Information that may be considered PPD   | Information that may be considered CCI |
|-----|--------|--|--|
|     |        | <p>Board (IRB) and Independent Ethics Committee (IEC)</p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The studied indication and prevalence such as rare or non-rare</li> <li>– The studied population such as paediatric, elderly, pregnant, etc.</li> <li>– The number of participants enrolled</li> <li>– The number of sites and countries where the study was conducted</li> <li>– The duration of the study</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> |  |

| CTD | EU CTD | Information that may be considered PPD  | Information that may be considered CCI |
|-----|--------|---|--|
|     |        | <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>- The type of product such as orphan or non-orphan</li> <li>- The indication and prevalence such as rare or non-rare</li> <li>- The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li>- The post-marketing exposure</li> <li>- The number of countries where the product is marketed</li> </ul> </li> </ul> |  |

| CTD                | EU CTD  | Information that may be considered PPD   | Information that may be considered CCI   |
|--------------------|---|--|--|
|                    |   | <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul>  |  |
| <p><b>1.10</b></p> | <p><b>Information relating to Paediatrics</b></p> | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of new formulation, innovative technology or the investigation of the effect of the medicinal product in new indications or populations, details on planned/ongoing studies which are part of a non-completed PIP</li> <li>• Detailed information concerning the quality and manufacturing of the medicinal product such as description of the manufacturing process, controls of materials and critical steps etc.</li> </ul> |

| CTD | EU CTD | Information that may be considered PPD  | Information that may be considered CCI |
|-----|--------|---|--|
|     |        | <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The studied indication and prevalence such as rare or non-rare</li> <li>– The studied population such as paediatric, elderly, pregnant, etc.</li> <li>– The number of participants enrolled</li> <li>– The number of sites and countries where the study was conducted</li> <li>– The duration of the study</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>– Identification number such as subject number, patient number, case number, etc.</li> <li>– Age</li> <li>– Gender</li> <li>– Race</li> <li>– Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> |  |

| CTD | EU CTD | Information that may be considered PPD  | Information that may be considered CCI |
|-----|--------|---|--|
|     |        | <p data-bbox="786 225 1294 288"><u>D. PD related to patients in the context of medicine safety:</u></p> <ul data-bbox="786 300 1375 890" style="list-style-type: none"> <li data-bbox="786 300 1346 363">• Direct identifiers such as name, signature, contact details, etc.</li> <li data-bbox="786 375 1375 890">• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul data-bbox="831 523 1375 890" style="list-style-type: none"> <li data-bbox="831 523 1346 587">– The type of product such as orphan or non-orphan</li> <li data-bbox="831 598 1346 662">– The indication and prevalence such as rare or non-rare</li> <li data-bbox="831 673 1375 778">– The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li data-bbox="831 790 1240 813">– The post-marketing exposure</li> <li data-bbox="831 825 1308 890">– The number of countries where the product is marketed</li> </ul> </li> </ul> <p data-bbox="831 938 1346 1043">Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul data-bbox="831 1054 1361 1375" style="list-style-type: none"> <li data-bbox="831 1054 1361 1160">– Identification number such as subject number, patient number, case number, etc.</li> <li data-bbox="831 1171 931 1195">– Age</li> <li data-bbox="831 1206 972 1230">– Gender</li> <li data-bbox="831 1241 943 1265">– Race</li> <li data-bbox="831 1276 1346 1375">– Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> |  |

| CTD | EU CTD                 | Information that may be considered PPD  | Information that may be considered CCI  |
|-----|------------------------|---|---|
|     | Responses to Questions | Depending on the nature of the questions, the type of PD in the responses may vary:<br><br><u>A. PD related to experts or designated personnel with legally defined responsibilities</u><br><u>B. PD related to staff with no legally defined responsibilities</u><br><u>C. PD related to participants involved in clinical trials and clinical studies</u><br><u>D. PD related to patients in the context of medicine safety</u> | Depending on the nature of the questions, the type of information in the responses may vary (quality, non-clinical and/or clinical). Please refer to the appropriate sub-modules herein for guidance. |
|     | Additional Data        | Please refer to the appropriate sub-modules for guidance.   |   |

## Module 2 – Common Technical Document Summaries

| CTD          | EU CTD                                      | Information that may be considered PPD   | Information that may be considered CCI   |
|--------------|---|--|--|
| <b>2.1</b>   | <b>CTD Table of Contents (Module 2 – 5)</b> | Not expected   | Not expected. However, if the table of contents provides highly detailed information, in particular in relation to sub-module 2.3 and Module 3, CCI may be present. Please refer to the appropriate sub-modules herein for guidance. |
| <b>2.2</b>   | <b>CTD Introduction</b>                     | Not expected   | Not expected   |
| <b>2.3</b>   | <b>Quality Overall Summary</b>              | Not expected   | Please refer to the appropriate sub-modules herein for guidance.   |
| <b>2.3.S</b> | <b>DRUG SUBSTANCE (name, manufacturer)</b>  |  |  |
| 2.3.S.1      | General Information (name, manufacturer)    | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u> | <ul style="list-style-type: none"> <li>Quantitative composition for the excipients (for formulated substances only)</li> </ul>   |

| CTD     | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI   |
|---------|---|---|--|
| 2.3.S.2 | Manufacture (name, manufacturer)                      | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <p>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <p>Not expected</p> | <ul style="list-style-type: none"> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing process such as description of steps, reagents, equipment, parameters, instruments, materials, cell culture and harvest, etc.</li> <li>– Characterisation, controls</li> <li>– Approaches to pharmaceutical development such as Quality by Design</li> <li>– Analytical methods</li> <li>– Validation of the manufacturing process</li> <li>– In-process controls</li> <li>– Justification of specification</li> <li>– Amino acid sequence regarding new active substance</li> <li>– Cell line host/clones used to express a protein/vector</li> <li>– Impurities and degradants</li> <li>– Container closure system</li> <li>– Post-Approval Change Management Protocols (PACMPs)</li> </ul> </li> <li>• Quantitative acceptance criteria for starting materials, intermediates and active substances</li> <li>• Batch size/production scale (development scale and commercial scale)</li> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing sites not listed in the Product Information (PI)</li> <li>– Bulk manufacturers (except manufacturer of the biological active substance)</li> <li>– Excipients manufacturers</li> <li>– Packaging site(s)</li> </ul> </li> </ul> |
| 2.3.S.3 | Characterisation (name, manufacturer)                 |   |  |
| 2.3.S.4 | Control of Drug Substance (name, manufacturer)        |   |  |
| 2.3.S.5 | Reference Standards or Materials (name, manufacturer) |   |  |
| 2.3.S.6 | Container Closure System (name, manufacturer)         |   |  |
| 2.3.S.7 | Stability (name, manufacturer)                        |   |  |

| CTD          | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI   |
|--------------|---|---|--|
|              |   |   | <ul style="list-style-type: none"> <li>– Batch control/testing site(s)</li> <li>– Facilities</li> <li>• Partners/third parties such as suppliers, contract manufacturing organisation(s) (CMO), contract development and manufacturing organisation(s) (CDMO), contract research organisation(s) (CRO), etc.</li> <li>• Detailed information on contractual agreements.</li> </ul>   |
| <b>2.3.P</b> | <b>DRUG PRODUCT (name, dosage form)</b>                                 |   |  |
| 2.3.P.1      | Description and Composition of the Drug Product (name, dosage form)     | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | <ul style="list-style-type: none"> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing process such as description of steps, reagents, equipment, parameters, instruments, materials, etc.</li> <li>– Characterisation, controls</li> <li>– Approaches to pharmaceutical development such as Quality by Design</li> <li>– Analytical methods</li> <li>– Validation of the manufacturing process</li> <li>– In-process controls</li> <li>– Justification of specification</li> <li>– Impurities and degradants</li> <li>– Adventitious agents safety information/virus removal validation</li> <li>– PACMPs</li> </ul> </li> <li>• Quantitative acceptance criteria for starting materials, intermediates and finished product</li> <li>• Batch size/production scale (development scale and commercial scale)</li> <li>• Novel excipients information</li> </ul> |
| 2.3.P.2      | Pharmaceutical Development (name, dosage form)                          | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul>   |  |
| 2.3.P.3      | Manufacture (name, dosage form)   | <u>B. PD related to staff with no legally defined responsibilities:</u>   |  |
| 2.3.P.4      | Control of Excipients (name, dosage form)                               |   |  |
| 2.3.P.5      | Control of Drug Product (name, dosage form)                             | <ul style="list-style-type: none"> <li>• Name of employee, consultant or contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> |  |
| 2.3.P.6      | Reference Standards or Materials (name, dosage form)                    |   |  |
| 2.3.P.7      | Container Closure System (name, dosage form)                            |   |  |
| 2.3.P.8      | Stability (name, dosage form)   | <u>C. PD related to participants involved in clinical trials and clinical studies:</u>  |  |
| 2.3.A        | APPENDICES  |   |  |
| 2.3.A.1      | Facilities and Equipment (name, manufacturer)                           |   |  |
| 2.3.A.2      | Adventitious Agents Safety Evaluation (name, dosage form, manufacturer) | Not expected  |  |

| CTD     | EU CTD                      | Information that may be considered PPD  | Information that may be considered CCI  |
|---------|-----------------------------|---|---|
| 2.3.A.3 | Excipients                  |   |   |
| 2.3.R   | REGIONAL INFORMATION        | <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p>   | <ul style="list-style-type: none"> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing sites not listed in the PI</li> <li>– Bulk manufacturers (except manufacturer of the biological finished product)</li> <li>– Excipients manufacturers</li> <li>– Packaging site(s)</li> <li>– Batch control/testing site(s)</li> <li>– Facilities</li> </ul> </li> <li>• Partners/third parties such as suppliers, CMOs, CDMOs, CROs, etc.</li> <li>• Detailed information on contractual agreements</li> </ul>          |
| 2.4     | <b>Nonclinical Overview</b> | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of non-clinical study director</li> <li>• Name of a 'principal research scientist' in a non-clinical technical report</li> <li>• Name of employee such as toxicologist or consultant and contractor</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> </ul> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of new formulation or the investigation of the effect of the medicinal product in new indications or populations, studies, etc.</li> <li>• Detailed information on analytical methods such as reagents, equipment, instruments, materials, etc.</li> <li>• Information on partners/third parties such as suppliers</li> <li>• Detailed information on contractual agreements</li> <li>• Detailed information on the facilities</li> </ul> |

| CTD        | EU CTD                            | Information that may be considered PPD   | Information that may be considered CCI  |
|------------|-----------------------------------|--|---|
|            |                                   | <ul style="list-style-type: none"> <li>Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p>   |   |
| <b>2.5</b> | <b>Clinical Overview</b>          |  |   |
| 2.5.1      | Product Development Rationale     | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>   | <ul style="list-style-type: none"> <li>Information on future development plans such as the evaluation of new formulation or exploration of the effect of the medicinal product in new indications or populations, details on planned/ongoing studies which are part of a non-completed PIP</li> <li>Detailed information on contractual agreements</li> </ul> |
| 2.5.2      | Overview of Biopharmaceutics      | <ul style="list-style-type: none"> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul>   |   |
| 2.5.3      | Overview of Clinical Pharmacology | <ul style="list-style-type: none"> <li>Signature</li> </ul>  |   |
| 2.5.4      | Overview of Efficacy              |  |   |
| 2.5.5      | Overview of Safety                |  |   |
| 2.5.6      | Benefits and Risks Conclusions    | <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>Name of clinical study director</li> <li>Name of investigators other than the principal investigator</li> <li>Name of employee, consultant or contractor</li> <li>Name of HCP</li> <li>Name of members of CT Safety Monitoring Board or Independent/External Data Monitoring Committee</li> <li>Names of (vice-) chair, members and alternate members of Institutional Review</li> </ul> |   |

| CTD | EU CTD | Information that may be considered PPD   | Information that may be considered CCI |
|-----|--------|--|--|
|     |        | <p>Board (IRB) and Independent Ethics Committee (IEC)</p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The studied indication and prevalence such as rare or non-rare</li> <li>– The studied population such as paediatric, elderly, pregnant, etc.</li> <li>– The number of participants enrolled</li> <li>– The number of sites and countries where the study was conducted</li> <li>– The duration of the study</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> |  |

| CTD | EU CTD | Information that may be considered PPD  | Information that may be considered CCI |
|-----|--------|---|--|
|     |        | <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> <p><u>D. PD related to patients in the context of medicine safety:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>- The type of product such as orphan or non-orphan</li> <li>- The indication and prevalence such as rare or non-rare</li> <li>- The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li>- The post-marketing exposure</li> <li>- The number of countries where the product is marketed</li> </ul> </li> </ul> |  |

| CTD        | EU CTD  | Information that may be considered PPD   | Information that may be considered CCI  |
|------------|---|--|---|
|            |   | <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> <li>- Gender</li> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul>  |   |
| 2.5.7      | Literature References                           | Name of author(s) of internal documents listed in the references   | Not expected  |
| <b>2.6</b> | <b>Nonclinical Summary</b>                      |  |   |
| 2.6.1      | INTRODUCTION                                    | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of non-clinical study director</li> <li>• Name of a 'principal research scientist' in a non-clinical technical report</li> <li>• Name of employee such as toxicologist or consultant and contractor</li> </ul> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of new formulation or the investigation of the effect of the medicinal product in new indications or populations, studies, etc.</li> <li>• Detailed information on analytical methods such as reagents, equipment, instruments, materials, etc.</li> <li>• Information on partners/third parties such as suppliers</li> <li>• Detailed information on contractual agreements</li> <li>• Detailed information on the facilities</li> </ul> |
| 2.6.2      | PHARMACOLOGY WRITTEN SUMMARY                    |  |   |
| 2.6.2.1    | Brief Summary                                   |  |   |
| 2.6.2.2    | Primary Pharmacodynamics                        |  |   |
| 2.6.2.3    | Secondary Pharmacodynamics                      |  |   |
| 2.6.2.4    | Safety Pharmacology                             |  |   |
| 2.6.2.5    | Pharmacodynamic Drug Interactions               |  |   |
| 2.6.2.6    | Discussion and Conclusions                      |  |   |
| 2.6.2.7    | Tables and Figures                              |  |   |
| 2.6.3      | PHARMACOLOGY TABULATED SUMMARY (SEE APPENDIX B) |  |   |
| 2.6.4      | PHARMACOKINETICS WRITTEN SUMMARY                |  |   |
| 2.6.4.1    | Brief Summary                                   |  |   |

| CTD      | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI |
|----------|---|---|--|
| 2.6.4.2  | Methods of Analysis   | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> |  |
| 2.6.4.3  | Absorption  |   |  |
| 2.6.4.4  | Distribution  |   |  |
| 2.6.4.5  | Metabolism (interspecies comparison)  |   |  |
| 2.6.4.6  | Excretion   |   |  |
| 2.6.4.7  | Pharmacokinetic Drug Interactions   |   |  |
| 2.6.4.8  | Other Pharmacokinetic Studies   |   |  |
| 2.6.4.9  | Discussion and Conclusions  |   |  |
| 2.6.4.10 | Tables and Figures  |   |  |
| 2.6.5    | PHARMACOKINETICS TABULATED SUMMARY (SEE APPENDIX B)   |   |  |
| 2.6.6    | TOXICOLOGY WRITTEN SUMMARY  |   |  |
| 2.6.6.1  | Brief Summary   |   |  |
| 2.6.6.2  | Single-Dose Toxicity  |   |  |
| 2.6.6.3  | Repeat-Dose Toxicity (including supportive toxicokinetics evaluation)   |   |  |
| 2.6.6.4  | Genotoxicity  |   |  |
| 2.6.6.5  | Carcinogenicity (including supportive toxicokinetics evaluations)   |   |  |
| 2.6.6.6  | Reproductive and Developmental Toxicity (including range-finding studies and supportive toxicokinetics evaluations) |   |  |
| 2.6.6.7  | Local Tolerance   |   |  |
| 2.6.6.8  | Other Toxicity Studies (if available)   |   |  |
| 2.6.6.9  | Discussion and Conclusions  |   |  |
| 2.6.6.10 | Tables and Figures  |   |  |
| 2.6.7    | TOXICOLOGY TABULATED SUMMARY (SEE APPENDIX B)   |   |  |

| CTD         | EU CTD   | Information that may be considered PPD  | Information that may be considered CCI  |
|-------------|--|---|---|
| APPENDIX A: | EXAMPLES OF TABLES AND FIGURES FOR WRITTEN SUMMARIES                   |   |   |
| APPENDIX B: | THE NONCLINICAL TABULATED SUMMARIES – TEMPLATES                        |   |   |
| <b>2.7</b>  | <b>Clinical Summary</b>  |   |   |
| 2.7.1       | Summary of Biopharmaceutical Studies and Associated Analytical Methods | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of clinical study director</li> <li>• Name of investigators other than the principal investigator</li> <li>• Name of employee, consultant or contractor</li> <li>• Name of HCP</li> <li>• Name of members of CT Safety Monitoring Board or Independent/External Data Monitoring Committee</li> <li>• Names of (vice-) chair, members and alternate members of Institutional Review Board (IRB) and Independent Ethics Committee (IEC)</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of a new formulation or the investigation of the effect of the medicinal product in new indications or populations, studies etc., details on planned/ongoing studies which are part of a non-completed PIP etc.</li> <li>• Detailed information on contractual agreements.</li> <li>• If quality data is present, please refer to the appropriate sub-modules herein for guidance.</li> </ul> |
| 2.7.1.1     | Background and Overview  |   |   |
| 2.7.1.2     | Summary of Results of Individual Studies                               |   |   |
| 2.7.1.3     | Comparison and Analyses of Results Across Studies                      |   |   |
| 2.7.1.4     | Appendix   |   |   |
| 2.7.2       | Summary of Clinical Pharmacology Studies                               |   |   |
| 2.7.2.1     | Background and Overview  |   |   |
| 2.7.2.2     | Summary of Results of Individual Studies                               |   |   |
| 2.7.2.3     | Comparison and Analyses of Results Across Studies                      |   |   |
| 2.7.2.4     | Special Studies  |   |   |
| 2.7.2.5     | Appendix   |   |   |
| 2.7.3       | Summary of Clinical Efficacy   |   |   |
| 2.7.3.1     | Background and Overview of Clinical Efficacy                           |   |   |
| 2.7.3.2     | Summary of Results of Individual Studies                               |   |   |
| 2.7.3.3     | Comparison and Analyses of Results Across Studies                      |   |   |

| CTD       | EU CTD  | Information that may be considered PPD  | Information that may be considered CCI |
|-----------|---|---|--|
| 2.7.3.4   | Study Populations   | <ul style="list-style-type: none"> <li>• Function, position</li> <li>• Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The studied indication and prevalence such as rare or non-rare</li> <li>– The studied population such as paediatric, elderly, pregnant, etc.</li> <li>– The number of participants enrolled</li> <li>– The number of sites and countries where the study was conducted</li> <li>– The duration of the study</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>– Identification number such as subject number, patient number, case number, etc.</li> <li>– Age</li> <li>– Gender</li> </ul> |  |
| 2.7.3.5   | Comparison of Efficacy Results of all Studies                       |   |  |
| 2.7.3.6   | Analysis of Clinical Information Relevant to Dosing Recommendations |   |  |
| 2.7.3.7   | Persistence of Efficacy and/or Tolerance Effects                    |   |  |
| 2.7.3.    | Appendix  |   |  |
| 2.7.4     | Summary of Clinical Safety  |   |  |
| 2.7.4.1   | Exposure to the Drug  |   |  |
| 2.7.4.1.1 | Overall Safety Evaluation Plan and Narratives of Safety Studies     |   |  |
| 2.7.4.1.2 | Overall Extent of Exposure  |   |  |
| 2.7.4.1.3 | Demographic and Other Characteristics of Study Population           |   |  |
| 2.7.4.2   | Adverse Events  |   |  |
| 2.7.4.2.1 | Analysis of Adverse Events  |   |  |
| 2.7.4.2.1 | Common Adverse Events   |   |  |
| .1        |   |   |  |
| 2.7.4.2.1 | Deaths  |   |  |
| .2        |   |   |  |
| 2.7.4.2.1 | Other Serious Adverse Events  |   |  |
| .3        |   |   |  |
| 2.7.4.2.1 | Other Significant Adverse Events                                    |   |  |
| .4        |   |   |  |
| 2.7.4.2.1 | Analysis of Adverse Events by Organ System or Syndrome              |   |  |
| .5        |   |   |  |
| 2.7.4.2.2 | Narratives  |   |  |
| 2.7.4.3   | Clinical Laboratory Evaluations                                     |   |  |

| CTD       | EU CTD   | Information that may be considered PPD   | Information that may be considered CCI |
|-----------|--|--|--|
| 2.7.4.4   | Vital Signs, Physical Findings, and Other Observations Related to Safety         | <ul style="list-style-type: none"> <li>- Race</li> <li>- Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language etc.</li> </ul>  |  |
| 2.7.4.5   | Safety in Special Groups and Situations  |  |  |
| 2.7.4.5.1 | Intrinsic Factors  | <p><u>D. PD related to patients in the context of medicine safety:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance:               <ul style="list-style-type: none"> <li>- The type of product such as orphan or non-orphan</li> <li>- The indication and prevalence such as rare or non-rare</li> <li>- The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li>- The post-marketing exposure</li> <li>- The number of countries where the product is marketed</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>- Identification number such as subject number, patient number, case number, etc.</li> <li>- Age</li> </ul> |  |
| 2.7.4.5.2 | Extrinsic Factors  |  |  |
| 2.7.4.5.3 | Drug Interactions  |  |  |
| 2.7.4.5.4 | Use in Pregnancy and Lactation   |  |  |
| 2.7.4.5.5 | Overdose   |  |  |
| 2.7.4.5.6 | Drug Abuse   |  |  |
| 2.7.4.5.7 | Withdrawal and Rebound   |  |  |
| 2.7.4.5.8 | Effects on Ability to Drive or Operate Machinery or Impairment of Mental Ability |  |  |
| 2.7.4.6   | Post-marketing Data  |  |  |
| 2.7.4.7   | Appendix   |  |  |

| CTD   | EU CTD                         | Information that may be considered PPD   | Information that may be considered CCI |
|-------|--------------------------------|--|--|
|       |                                | <ul style="list-style-type: none"> <li>– Gender</li> <li>– Race</li> <li>– Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> |  |
| 2.7.5 | Literature References          | Name of author(s) of internal documents listed in the references   | Not expected                           |
| 2.7.6 | Synopses of Individual Studies | Not expected   | Not expected                           |

### Module 3 – Quality

| CTD          | EU CTD                                     | Information that may be considered PPD  | Information that may be considered CCI  |
|--------------|--|---|---|
| <b>3.1</b>   | <b>Table of Contents of Module 3</b>       | Not expected  | Not expected. However, if the table of contents provides highly detailed information, CCI may be present. Please refer to the appropriate sub-modules herein for guidance.  |
| <b>3.2</b>   | <b>Body of Data</b>                        | Not expected  | Not expected  |
| <b>3.2.S</b> | <b>Drug substance (name, manufacturer)</b> |   |   |
| 3.2.S.1      | General Information (name, manufacturer)   | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | <ul style="list-style-type: none"> <li>• Quantitative composition for the excipients (for formulated substances only)</li> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing process such as description of steps, reagents, equipment, parameters, instruments, materials, cell culture and harvest, etc.</li> <li>– Characterisation, controls</li> </ul> </li> </ul> |
| 3.2.S.1.1    | Nomenclature (name, manufacturer)          | <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> |   |
| 3.2.S.1.2    | Structure (name, manufacturer)             |   |   |
| 3.2.S.1.3    | General Properties (name, manufacturer)    |   |   |
| 3.2.S.2      | Manufacture (name, manufacturer)           | <u>B. PD related to staff with no legally defined responsibilities:</u>   |   |
| 3.2.S.2.1    | Manufacturer(s) (name, manufacturer)       |   |   |

| CTD       | EU CTD   | Information that may be considered PPD   | Information that may be considered CCI   |
|-----------|--|--|--|
| 3.2.S.2.2 | Description of Manufacturing Process and Process Controls (name, manufacturer) | <ul style="list-style-type: none"> <li>Name of employee, consultant or contractor</li> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul> | <ul style="list-style-type: none"> <li>Approaches to pharmaceutical development such as Quality by Design</li> <li>Analytical methods</li> <li>Validation of the manufacturing process</li> <li>In-process controls</li> <li>Justification of specification</li> <li>Amino acid sequence regarding new active substance</li> <li>Cell line host/clones used to express a protein/vector</li> <li>Impurities and degradants</li> <li>PACMPs</li> <li>Container closure system</li> </ul>  |
| 3.2.S.2.3 | Control of Materials (name, manufacturer)                                      |  |  |
| 3.2.S.2.4 | Controls of Critical Steps and Intermediates (name, manufacturer)              | <ul style="list-style-type: none"> <li>Function, position</li> <li>Signature</li> </ul>  | <ul style="list-style-type: none"> <li>Quantitative acceptance criteria for intermediates and active substances</li> <li>Batch size/production scale (development scale and commercial scale)</li> <li>Detailed information on: <ul style="list-style-type: none"> <li>Manufacturing sites not listed in the PI</li> <li>Bulk manufacturers (except manufacturer of the biological active substance)</li> <li>Excipients manufacturers</li> <li>Packaging site(s)</li> <li>Batch control/testing site(s)</li> <li>Facilities</li> </ul> </li> <li>Partners/third parties such as suppliers, CMOs, CDMOs, CROs, etc.</li> <li>Detailed information on contractual agreements</li> </ul> |
| 3.2.S.2.5 | Process Validation and/or Evaluation (name, manufacturer)                      | <u>C. PD related to participants involved in clinical trials and clinical studies:</u>   |  |
| 3.2.S.2.6 | Manufacturing Process Development (name, manufacturer)                         | Not expected   |  |
| 3.2.S.3   | Characterisation (name, manufacturer)  | <u>D. PD related to patients in the context of medicine safety:</u>  |  |
| 3.2.S.3.1 | Elucidation of Structure and other Characteristics (name, manufacturer)        | Not expected   |  |
| 3.2.S.3.2 | Impurities (name, manufacturer)  |  |  |
| 3.2.S.4   | Control of Drug Substance (name, manufacturer)                                 |  |  |
| 3.2.S.4.1 | Specification (name, manufacturer)   |  |  |
| 3.2.S.4.2 | Analytical Procedures (name, manufacturer)                                     |  |  |
| 3.2.S.4.3 | Validation of Analytical Procedures (name, manufacturer)                       |  |  |
| 3.2.S.4.4 | Batch Analyses (name, manufacturer)  |  |  |
| 3.2.S.4.5 | Justification of Specification (name, manufacturer)                            |  |  |
| 3.2.S.5   | Reference Standards or Materials (name, manufacturer)                          |  |  |

| CTD          | EU CTD   | Information that may be considered PPD  | Information that may be considered CCI   |
|--------------|--|---|--|
| 3.2.S.6      | Container Closure System (name, manufacturer)                                  |   |  |
| 3.2.S.7      | Stability (name, manufacturer)   |   |  |
| 3.2.S.7.1    | Stability Summary and Conclusions (name, manufacturer)                         |   |  |
| 3.2.S.7.2    | Post-approval Stability Protocol and Stability Commitment (name, manufacturer) |   |  |
| 3.2.S.7.3    | Stability Data (name, manufacturer)  |   |  |
| <b>3.2.P</b> | <b>DRUG PRODUCT (name, dosage form)</b>  |   |  |
| 3.2.P.1      | Description and Composition of the Drug Product (name, dosage form)            | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>  | <ul style="list-style-type: none"> <li>Detailed information on: <ul style="list-style-type: none"> <li>Manufacturing process such as description of steps, reagents, equipment, parameters, instruments, materials, etc.</li> <li>Characterisation, controls</li> <li>Approaches to pharmaceutical development such as Quality by Design</li> <li>Analytical methods</li> <li>Validation of the manufacturing process</li> <li>In-process controls</li> <li>Justification of specification</li> <li>Impurities and degradants</li> <li>Adventitious agents safety information/virus removal validation</li> <li>PACMPs</li> </ul> </li> <li>Quantitative acceptance criteria for intermediates and finished product</li> <li>Batch size/production scale (development scale and commercial scale)</li> </ul> |
| 3.2.P.2      | Pharmaceutical Development (name, dosage form)                                 | <ul style="list-style-type: none"> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>Signature</li> </ul> |  |
| 3.2.P.2.1    | Components of the Drug Product (name, dosage form)                             | <u>B. PD related to staff with no legally defined responsibilities:</u>   |  |
| 3.2.P.2.1.1  | Drug Substance (name, dosage form)   | <ul style="list-style-type: none"> <li>Name of employee, consultant or contractor</li> </ul>  |  |
| 3.2.P.2.1.2  | Excipients (name, dosage form)   | <ul style="list-style-type: none"> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul>                    |  |
| 3.2.P.2.2    | Drug Product (name, dosage form)   | <ul style="list-style-type: none"> <li>Function, position</li> <li>Signature</li> </ul>   |  |
| 3.2.P.2.2.1  | Formulation Development (name, dosage form)                                    |   |  |
| 3.2.P.2.2.2  | Overages (name, dosage form)   |   |  |
| 3.2.P.2.2.3  | Physicochemical and Biological Properties (name, dosage form)                  |   |  |
| 3.2.P.2.3    | Manufacturing Process Development (name, dosage form)                          | <u>C. PD related to participants involved in clinical trials and clinical studies:</u>  |  |

| CTD       | EU CTD  | Information that may be considered PPD                              | Information that may be considered CCI  |
|-----------|---|---|---|
| 3.2.P.2.4 | Container Closure System (name, dosage form)                                  | Not expected  | <ul style="list-style-type: none"> <li>• Novel excipients information</li> <li>• Detailed information on: <ul style="list-style-type: none"> <li>– Manufacturing sites not listed in the PI</li> <li>– Bulk manufacturers (except manufacturer of the biological finished product)</li> <li>– Excipients manufacturers</li> <li>– Packaging site(s)</li> <li>– Batch control/testing site(s)</li> <li>– Facilities</li> <li>– Partners/third parties such as suppliers, CMOs, CROs, etc.</li> </ul> </li> <li>• Detailed information on contractual agreements</li> </ul> |
| 3.2.P.2.5 | Microbiological Attributes (name, dosage form)                                | <u>D. PD related to patients in the context of medicine safety:</u> |   |
| 3.2.P.2.6 | Compatibility (name, dosage form)   | Not expected  |   |
| 3.2.P.3   | Manufacture (name, dosage form)   |   |   |
| 3.2.P.3.1 | Manufacturer(s) (name, dosage form)   |   |   |
| 3.2.P.3.2 | Batch Formula (name, dosage form)   |   |   |
| 3.2.P.3.3 | Description of Manufacturing Process and Process Controls (name, dosage form) |   |   |
| 3.2.P.3.4 | Controls of Critical Steps and Intermediates (name, dosage form)              |   |   |
| 3.2.P.3.5 | Process Validation and/or Evaluation (name, dosage form)                      |   |   |
| 3.2.P.4   | Control of Excipients (name, dosage form)                                     |   |   |
| 3.2.P.4.1 | Specifications (name, dosage form)  |   |   |
| 3.2.P.4.2 | Analytical Procedures (name, dosage form)                                     |   |   |
| 3.2.P.4.3 | Validation of Analytical Procedures (name, dosage form)                       |   |   |
| 3.2.P.4.4 | Justification of Specifications (name, dosage form)                           |   |   |
| 3.2.P.4.5 | Excipients of Human or Animal Origin (name, dosage form)                      |   |   |
| 3.2.P.4.6 | Novel Excipients (name, dosage form)  |   |   |

| CTD          | EU CTD  | Information that may be considered PPD | Information that may be considered CCI |
|--------------|---|--|--|
| 3.2.P.5      | Control of Drug Product (name, dosage form)                                   |  |  |
| 3.2.P.5.1    | Specification(s) (name, dosage form)  |  |  |
| 3.2.P.5.2    | Analytical Procedures (name, dosage form)                                     |  |  |
| 3.2.P.5.3    | Validation of Analytical Procedures (name, dosage form)                       |  |  |
| 3.2.P.5.4    | Batch Analyses (name, dosage form)  |  |  |
| 3.2.P.5.5    | Characterisation of Impurities (name, dosage form)                            |  |  |
| 3.2.P.5.6    | Justification of Specification(s) (name, dosage form)                         |  |  |
| 3.2.P.6      | Reference Standards or Materials (name, dosage form)                          |  |  |
| 3.2.P.7      | Container Closure System (name, dosage form)                                  |  |  |
| 3.2.P.8      | Stability (name, dosage form)   |  |  |
| 3.2.P.8.1    | Stability Summary and Conclusion (name, dosage form)                          |  |  |
| 3.2.P.8.2    | Post-approval Stability Protocol and Stability Commitment (name, dosage form) |  |  |
| 3.2.P.8.3    | Stability Data (name, dosage form)  |  |  |
| <b>3.2.A</b> | <b>APPENDICES</b>   |  |  |
| 3.2.A.1      | Facilities and Equipment (name, manufacturer)                                 |  |  |
| 3.2.A.2      | Adventitious Agents Safety Evaluation (name, dosage form, manufacturer)       |  |  |

| CTD        | EU CTD                       | Information that may be considered PPD                           | Information that may be considered CCI                                       |
|------------|------------------------------|--|--|
| 3.2.A.3    | Excipients                   |  |  |
| 3.2.R      | Regional Information         |  | If present, please refer to the appropriate sub-modules herein for guidance. |
| <b>3.3</b> | <b>Literature References</b> | Name of author(s) of internal documents listed in the references | Not expected   |

### Module 4 – Nonclinical Study Reports

| CTD        | EU CTD  | Information that may be considered PPD   | Information that may be considered CCI  |
|------------|---|--|---|
| <b>4.1</b> | <b>Table of contents of module 4</b>  | Not expected   | Not expected  |
| <b>4.2</b> | <b>STUDY REPORTS</b>  |  |   |
| 4.2.1      | Pharmacology  | <u>A. PD related to experts or designated personnel with legally defined responsibilities:</u>   | <ul style="list-style-type: none"> <li>Information on future development plans such as the evaluation of new formulation or the investigation of the effect of the medicinal product in new indications or populations, studies, etc.</li> <li>Detailed information on analytical methods such as reagents, equipment, instruments, materials, etc.</li> <li>Information on partners/third parties such as suppliers</li> <li>Detailed information on contractual agreements</li> <li>Detailed information on the facilities</li> </ul> |
| 4.2.1.1    | Primary Pharmacodynamics  | <ul style="list-style-type: none"> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul> |   |
| 4.2.1.2    | Secondary Pharmacodynamics  | <ul style="list-style-type: none"> <li>Signature</li> </ul>  |   |
| 4.2.1.3    | Safety Pharmacology   |  |   |
| 4.2.1.4    | Pharmacodynamic Drug Interactions   |  |   |
| 4.2.2      | Pharmacokinetics  | <u>B. PD related to staff with no legally defined responsibilities:</u>  |   |
| 4.2.2.1    | Analytical Methods and Validation Reports (if separate reports are available) | <ul style="list-style-type: none"> <li>Name of non-clinical study director</li> </ul>  |   |
| 4.2.2.2    | Absorption  | <ul style="list-style-type: none"> <li>Name of a 'principal research scientist' in a non-clinical technical report</li> </ul>                          |   |
| 4.2.2.3    | Distribution  | <ul style="list-style-type: none"> <li>Name of employee such as toxicologist or consultant and contractor</li> </ul>                                   |   |
| 4.2.2.4    | Metabolism  | <ul style="list-style-type: none"> <li>Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> </ul> |   |
| 4.2.2.5    | Excretion   |  |   |
| 4.2.2.6    | Pharmacokinetic Drug Interactions (nonclinical)                               |  |   |
| 4.2.2.7    | Other Pharmacokinetic Studies   |  |   |
| 4.2.3      | Toxicology  |  |   |

| CTD       | EU CTD   | Information that may be considered PPD   | Information that may be considered CCI |
|-----------|--|--|--|
| 4.2.3.1   | Single-Dose Toxicity (in order by species, by route)   | <ul style="list-style-type: none"> <li>Function, position</li> <li>Signature</li> </ul> <p><u>C. PD related to participants involved in clinical trials and clinical studies:</u><br/>Not expected</p> <p><u>D. PD related to patients in the context of medicine safety:</u><br/>Not expected</p> |  |
| 4.2.3.2   | Repeat-Dose Toxicity (in order by species, by route, by duration; including supportive toxicokinetics evaluations)   |  |  |
| 4.2.3.3   | Genotoxicity   |  |  |
| 4.2.3.3.1 | In vitro   |  |  |
| 4.2.3.3.2 | In vivo (including supportive toxicokinetics evaluations)  |  |  |
| 4.2.3.4   | Carcinogenicity (including supportive toxicokinetics evaluations)  |  |  |
| 4.2.3.4.1 | Long-term studies (in order by species; including range finding studies that cannot appropriately be included under repeat-dose toxicity or pharmacokinetics)  |  |  |
| 4.2.3.4.2 | Short- or medium-term studies (including range-finding studies that cannot appropriately be included under repeat dose toxicity or pharmacokinetics)   |  |  |
| 4.2.3.4.3 | Other studies  |  |  |
| 4.2.3.5   | Reproductive and Developmental Toxicity (including range-finding studies and supportive toxicokinetics evaluations) (If modified study designs are used, the following sub-headings should be modified accordingly.) |  |  |

| CTD        | EU CTD  | Information that may be considered PPD                           | Information that may be considered CCI |
|------------|---|--|--|
| 4.2.3.5.1  | Fertility and early embryonic development   |  |  |
| 4.2.3.5.2  | Embryo-foetal development   |  |  |
| 4.2.3.5.3  | Prenatal and postnatal development, including maternal function                       |  |  |
| 4.2.3.5.4  | Studies in which the offspring (juvenile animals) are dosed and/or further evaluated. |  |  |
| 4.2.3.6    | Local Tolerance   |  |  |
| 4.2.3.7    | Other Toxicity Studies (if available)   |  |  |
| 4.2.3.7.1  | Antigenicity  |  |  |
| 4.2.3.7.2  | Immunotoxicity  |  |  |
| 4.2.3.7.3  | Mechanistic studies (if not included elsewhere)                                       |  |  |
| 4.2.3.7.4  | Dependence  |  |  |
| 4.2.3.7.5  | Metabolites   |  |  |
| 4.2.3.7.6  | Impurities  |  |  |
| 4.2.3.7.7  | Other   |  |  |
| <b>4.3</b> | <b>Literature references</b>  | Name of author(s) of internal documents listed in the references | Not expected                           |

### **Module 5 – Clinical Study Reports**

| CTD        | EU CTD   | Information that may be considered PPD | Information that may be considered CCI |
|------------|--|--|--|
| <b>5.1</b> | <b>Table of Contents of Module 5</b>           | Not expected                           | Not expected                           |
| <b>5.2</b> | <b>Tabular Listing of All Clinical Studies</b> | Not expected                           | Not expected                           |
| <b>5.3</b> | <b>Clinical Study Reports</b>                  |  |  |
| 5.3.1      | Reports of Biopharmaceutical Studies           |  |  |

| CTD     | EU CTD  | Information that may be considered PPD   | Information that may be considered CCI  |
|---------|---|--|---|
| 5.3.1.1 | Bioavailability (BA) Study Reports  | <p><u>A. PD related to experts or designated personnel with legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Signature</li> </ul> <p><u>B. PD related to staff with no legally defined responsibilities:</u></p> <ul style="list-style-type: none"> <li>• Name of clinical study director</li> <li>• Name of investigators other than the principal investigator</li> <li>• Name of employee, consultant or contractor</li> <li>• Name of HCP</li> <li>• Name of members of CT Safety Monitoring Board or Independent/External Data Monitoring Committee</li> <li>• Names of (vice-) chair, members and alternate members of Institutional Review Board (IRB) and Independent Ethics Committee (IEC)</li> <li>• Direct contact details such as telephone number, fax number, email, postal address, IP address, etc.</li> <li>• Function, position</li> <li>• Signature</li> </ul> | <ul style="list-style-type: none"> <li>• Information on future development plans such as the evaluation of new formulation or the investigation of the effect of the medicinal product in new indications or populations, details on planned/ongoing studies which are part of a non-completed PIP, etc.</li> <li>• Detailed information on contractual agreements</li> <li>• If quality data is present, please refer to the appropriate sub-modules herein for guidance.</li> </ul> |
| 5.3.1.2 | Bioavailability (BA) Study Reports  |  |   |
| 5.3.1.3 | In vitro-In vivo Correlation Study Reports                                |  |   |
| 5.3.1.4 | Reports of Bioanalytical and Analytical Methods for Human Studies         |  |   |
| 5.3.2   | Reports of Studies Pertinent to Pharmacokinetics using Human Biomaterials |  |   |
| 5.3.2.1 | Plasma Protein Binding Study Reports                                      |  |   |
| 5.3.2.2 | Reports of Hepatic Metabolism and Drug Interaction Studies                |  |   |
| 5.3.2.3 | Reports of Studies Using Other Human Biomaterials                         |  |   |
| 5.3.3   | Reports of Human Pharmacokinetic (PK) Studies                             |  |   |
| 5.3.3.1 | Healthy Subject PK and Initial Tolerability Study Reports                 |  |   |
| 5.3.3.2 | Patient PK and Initial Tolerability Study Reports                         |  |   |
| 5.3.3.3 | Intrinsic Factor PK Study Reports   |  |   |
| 5.3.3.4 | Extrinsic Factor PK Study Reports   |  |   |
| 5.3.3.5 | Population PK Study Reports   |  |   |
| 5.3.4   | Reports of Human Pharmacodynamic (PD) Studies                             |  |   |
| 5.3.4.1 | Healthy Subject PD and PK/PD Study Reports                                |  |   |
| 5.3.4.2 | Patient PD and PK/PD Study Reports  |  |   |

| CTD     | EU CTD   | Information that may be considered PPD   | Information that may be considered CCI |
|---------|--|--|--|
| 5.3.5   | Reports of Efficacy and Safety Studies   | <p data-bbox="822 240 1308 304"><u>C. PD related to participants involved in clinical trials and clinical studies:</u></p> <ul data-bbox="822 320 1379 906" style="list-style-type: none"> <li data-bbox="822 320 1249 384">• Direct identifiers such as name, signature, contact details, etc.</li> <li data-bbox="822 392 1379 906">• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul data-bbox="869 544 1379 906" style="list-style-type: none"> <li data-bbox="869 544 1352 608">– The type of product such as orphan or non-orphan</li> <li data-bbox="869 616 1379 679">– The studied indication and prevalence such as rare or non-rare</li> <li data-bbox="869 687 1301 751">– The studied population such as paediatric, elderly, pregnant, etc.</li> <li data-bbox="869 759 1352 791">– The number of participants enrolled</li> <li data-bbox="869 799 1335 863">– The number of sites and countries where the study was conducted</li> <li data-bbox="869 871 1227 903">– The duration of the study</li> </ul> </li> </ul> <p data-bbox="869 954 1379 1050">Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul data-bbox="869 1066 1379 1390" style="list-style-type: none"> <li data-bbox="869 1066 1379 1166">– Identification number such as subject number, patient number, case number, etc.</li> <li data-bbox="869 1174 965 1206">– Age</li> <li data-bbox="869 1214 1010 1246">– Gender</li> <li data-bbox="869 1254 981 1286">– Race</li> <li data-bbox="869 1294 1379 1390">– Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> |  |
| 5.3.5.1 | Study Reports of Controlled Clinical Studies Pertinent to the Claimed Indication |  |  |
| 5.3.5.2 | Study Reports of Uncontrolled Clinical Studies                                   |  |  |
| 5.3.5.3 | Reports of Analyses of Data from More Than One Study                             |  |  |
| 5.3.5.4 | Other Clinical Study Reports   |  |  |
| 5.3.6   | Reports of Post-Marketing Experience   |  |  |
| 5.3.7   | Case Report Forms and Individual Patient Listings                                |  |  |

| CTD | EU CTD | Information that may be considered PPD   | Information that may be considered CCI |
|-----|--------|--|--|
|     |        | <p><u>D. PD related to patients in the context of medicine safety:</u></p> <ul style="list-style-type: none"> <li>• Direct identifiers such as name, signature, contact details, etc.</li> <li>• For indirect identifiers, the risk of re-identification of individuals needs to be defined. This may include taking into consideration risk criteria, for instance: <ul style="list-style-type: none"> <li>– The type of product such as orphan or non-orphan</li> <li>– The indication and prevalence such as rare or non-rare</li> <li>– The population covered by the indication such as adult, paediatric, elderly, pregnant, etc.</li> <li>– The post-marketing exposure</li> <li>– The number of countries where the product is marketed</li> </ul> </li> </ul> <p>Once the risk of re-identification has been defined, the following identifiers may be considered for anonymisation:</p> <ul style="list-style-type: none"> <li>– Identification number such as subject number, patient number, case number, etc.</li> <li>– Age</li> <li>– Gender</li> <li>– Race</li> </ul> |  |

| CTD        | EU CTD                       | Information that may be considered PPD   | Information that may be considered CCI |
|------------|------------------------------|--|--|
|            |                              | <ul style="list-style-type: none"> <li>– Country of origin, nationality, place of birth or information that can lead to it such as site numbers, language, etc.</li> </ul> |  |
| <b>5.4</b> | <b>Literature References</b> | Name of author(s) of internal documents listed in the references   | Not expected                           |