EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

20 January 2021
EMA/CVMP/IWP/582191/2020
Committee for Medicinal Products for Veterinary Use (CVMP)

Concept paper for the development of a guideline on data requirements for vaccine platform technology master files (PTMF)

Agreed by Immunologicals Working Party (IWP)	17 December 2020
Adopted by CVMP for release for consultation	20 January 2021
Start of public consultation	29 January 2021
End of consultation (deadline for comments)	31 March 2021

Comments should be provided using this template. The completed comments form should be sent to Vet-guidelines@ema.europa.eu

Keywords	Vaccine, platform technology, master files [1]

[1] To be identified here during preparation of the concept paper - keywords represent an internet search tool - Rapporteurs to propose and Working Party/Committee to adopt.

Official address Domenico Scarlattilaan 6 ● 1083 HS Amsterdam ● The Netherlands
Address for visits and deliveries Refer to www.ema.europa.eu/how-to-find-us
Send us a question Go to www.ema.europa.eu/contact **Telephone** +31 (0)88 781 6000 An agency of the European Union

1. Introduction

The current draft Annex to the Commission Delegated Regulation amending Annex II to Regulation (EC) No 2019/6 (still to be published by the European Commission at the time of publication of this document) introduces the concept of Vaccine Platform Technology Master File (PTMF) for the first time in veterinary medicines legislation.

The draft Annex describes briefly the principles and some details about the evaluation and certification process of PTMFs. It is stated that the submission and evaluation of PTMFs shall comply with relevant guidance published by the Agency.

The introduction of this new concept is aligned with the aims of the Regulation to reduce administrative burden, enhance the internal market and increase the availability of immunological veterinary medicinal products (IVMPs), while guaranteeing the highest level of public and animal health and environmental protection. The use of platform-based manufacturing processes in combination with PTMFs is expected to speed the development and licensing procedures of new veterinary vaccines, including vaccines against emerging/emergency diseases.

The Immunologicals Working Party has been tasked with the preparation of guidance on the technical/scientific data requirements to be submitted in support of a Vaccine Platform Technology Master File.

2. Problem statement

In the draft Annex to the Commission Delegated Regulation amending Annex II to Regulation (EC) No 2019/6, the following is indicated:

Vaccine platform technology

Principles

Vaccine platform technology is a collection of technologies that have in common the use of a 'backbone' carrier or vector that is modified with a different antigen or set of antigens for each vaccine derived from the platform. This includes, but may not be limited to, protein-based platforms (virus-like particles), DNA vaccine platforms, mRNA based platforms, replicons (self-replicating RNA) and viral and bacterial vector vaccines.

Applications for marketing authorisations of immunological veterinary medicinal products manufactured based on vaccine platform technologies are considered to be eligible for reduced data requirements. A full dossier is required for the first product from a manufacturer based on a particular platform technology for a particular target species. At the time of submission of the first (full) dossier based on the platform technology, the applicant may submit in parallel a 'Platform Technology Master File' comprising all data relative to the platform for which there is reasonable scientific certainty that will remain unchanged regardless of the antigen(s)/gene(s) of interest added to the platform. The nature of the data to be included in the Platform Technology Master File will depend on the type of platform.

Once a Platform Technology Master File is certified, the certificate may be used to fulfil the relevant data requirements in subsequent applications for marketing authorisations based on the same platform and intended for the same target species.

Evaluation and certification

The submission of Platform Technology Master Files shall comply with relevant guidance published by the Agency. A scientific and technical evaluation of a Platform Technology Master File shall be carried

out by the Agency. A positive evaluation shall result in a certificate of compliance to the European legislation for the Platform Technology Master File, which shall be accompanied by the evaluation report. The certificate shall apply throughout the Union.

Changes to the content of a Platform Technology Master File for a vaccine authorised in the Union shall be subject to a scientific and technical evaluation carried out by the Agency.

In the case of a positive evaluation the Agency shall issue a certificate of compliance with European Union legislation for the Platform Technology Master File.

Whilst the concept and basic principles of PTMFs are set out in the Annex, the content and scientific requirements to support a PTMF have not been defined. In preparation for the implementation of the Regulation (EU) 2019/6, the development of a guideline on the scientific data requirements for PTMFs is therefore required.

Procedural guidance for the submission, evaluation and certification of vaccine PTMFs will be developed in parallel by the Agency. This task is out of the scope of this concept paper.

3. Discussion (on the problem statement)

For the development of the guideline, the new legal basis and the provisions in Regulation (EU) 2019/6 will be considered.

The draft Annex introduces the **concept of a vaccine Platform Technology Master File** (PTMF) for the first time in veterinary medicines legislation. The PTMF is a stand-alone part of the dossier for an IVMP, which will remain unchanged regardless of the antigen(s)/gene(s) of interest added to the platform. Therefore, the stand-alone part may be common to one or more IVMPs for the same target species. Once a PTMF for a given platform technology has been approved for the first time as part of a full marketing authorisation application, the re- submission and re- assessment of parts of the dossier included in the PTMF as certified will not be necessary for other products using the same platform technology.

A new guideline is required to define the content and specific requirements for PTMFs to be submitted for assessment to comply with certification of a PTMF. Such guidance should also detail data requirements for assessment of subsequent marketing authorisation dossiers referring to already certified platform technologies.

The **concept of 'vaccine platform technology'** is defined in the Annex and some examples of platform technologies are specified including, but not limited to, protein-based platforms (virus-like particles), DNA vaccine platforms, mRNA-based platforms, replicons (self-replicating RNA) and viral and bacterial vector vaccines. Further explanation (and discussion) would be desirable on the definition of vaccine platform technology and the elements (e.g. starting materials, manufacturing processes) that can be considered to constitute an integral part of a given vaccine technology platform which may vary depending on the type of platform (e.g. live/inactivated; replication competent/incompetent).

A full marketing authorisation dossier is required for the first product from a manufacturer based on a particular platform technology for a particular target species and the data requirements will be in line with the requirements for IVMPs in accordance with EU Regulation 2019/6.

Data requirements for the full marketing authorisation dossier will include a detailed description (characterisation) and the degree of potential flexibility of the platform, including a justification for the choice of a particular platform. These requirements will be clearly outlined in the new guideline to obtain a vaccine PTMF certificate. Further consideration will be given to the level of detail for technical/scientific requirements e.g. high-level requirements could be given in the body of the

guideline whilst specific data requirements for 'known' platform technologies may also be developed and included as an annex. Acceptance/rejection criteria for certification should also be made clear in the new guideline.

The **content of a 'Platform Technology Master File'** is not described in the Annex and will be defined in the new guideline. It is expected that data to be included in a PTMF will mostly relate to quality but certain safety and efficacy data may also be included, depending on the characteristics of the platform.

Following a positive outcome of a scientific and technical evaluation of a first full marketing authorisation dossier containing a new PTMF, a certificate of compliance shall be issued along with an evaluation report. The certification of a PTMF will lead to **reduced data requirements of further dossiers** based on the same PTMF, as the data included in the original certified PTMF will not have to be re-submitted. Details will be outlined in the new guidance.

The same approved PTMF can be used for formulating monovalent and/or combined vaccines of a given manufacturer. The PTMF certificate issued will be valid for all the combinations. But, for example in vector vaccines, the possibility to include a second, or more inserts in the same vector platform for a combined vaccine could need a new PTMF certificate and will be evaluated case by case.

Reduced data requirements will only be accepted when the certified platform technology submitted in subsequent dossiers is deemed valid and the same platform technology as described in the certification (also taking into account related changes, by way of variation) is proposed for use. Acceptance criteria for reduced data requirements will be outlined in the new guideline. Although reduced data requirements will primarily relate to quality aspects there will also need to be consideration for any safety or efficacy aspects in the new guideline.

4. Recommendation

The Committee for Medicinal Products for Veterinary Use (CVMP) recommends the Immunologicals Working Party (IWP) to draft a guideline on data requirements for vaccine platform technology master files (PTMF).

5. Proposed timetable

29 January 2021	Concept paper released for consultation
31 March 2021	Deadline for comments from stakeholders
May 2021	Discussion in IWP
July 2021	Adoption of the draft guideline by CVMP and for release for consultation
October 2021	Expected end of consultation
January 2022	Expected date for adoption by CVMP and publication of the guideline

It is expected that the guideline will come into operation earlier than six months after adoption, coinciding with the date of application of the new veterinary medicines Regulation (EU) 2019/6 (28 January 2022).

6. Resource requirements for preparation

The development of the new guideline will involve the IWP (including a drafting group composed of rapporteur, co-rapporteur and 5 IWP members).

The IWP drafting group will meet virtually as required (e.g. 3-4 virtual meetings). Discussion is foreseen at 2 IWP plenary meetings.

7. Impact assessment (anticipated)

It is anticipated that the guideline would benefit both industry and regulators due to provision of a relevant guidance on data requirements for vaccine PTMFs. The use of PTMFs is expected to facilitate and speed up the development and authorisation of veterinary vaccines, hence contributing to increase the availability of the veterinary vaccines.

8. Interested parties

Veterinary pharmaceutical industry and consultants.

EU Regulatory authorities involved in assessment of marketing authorisation applications for veterinary vaccines.

9. References to literature, guidelines, etc.

Advice implementing measures under Article 146(2) of Regulation (EU) 2019/6 on veterinary medicinal products – Scientific recommendation on the revision of Annex II to Regulation (EU) 2019/6 on veterinary medicinal products (EMA/CVMP/351417/2019).

Annex to the Commission Delegated Regulation amending Annex II to Regulation (EC) No 2019/6 of the European Parliament and of the Council (draft published for feedback, 10 November 2020).)

CVMP/IWP/07/98-FINAL Note for guidance DNA vaccines non-amplifiable in eukaryotic cells for veterinary use (under revision).

EMEA/CVMP/004/04-FINAL Guideline on live recombinant vector vaccines for veterinary use.

EMEA/CVMP/VICH/811/04 VICH GL40 Test procedures and acceptance criteria for new biotechnological/biological veterinary medicinal products.

Zoonoses Anticipation and Preparedness Initiative www.zapi-imi.eu

USDA veterinary Services Memorandum 800.213. Licensing Guidelines for Production Platform Technology-Based, Non-Replicating, Nonviable Vaccines (March 12, 2018).