



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Information about the clinical study data proof-of-concept pilot for industry

Access to clinical study data for marketing authorisation and post-authorisation applications submitted to the EMA

The purpose of this document is to provide an overview about the proof-of-concept (PoC) pilot on the submission and analysis of data from clinical studies¹ as part of selected initial marketing authorisation applications (IMAA) and post-authorisation applications submitted to the European Medicines Agency (EMA).

Definitions

Clinical study data, also referred to as 'Standardised Study Data' mean individual patient data from clinical studies² in electronic structured format.

Background, expected benefits and objectives

The EMA's Committee for Medicinal Products for Human use (CHMP) assesses initial marketing authorisation applications and post-authorisation applications on the basis of a comprehensive scientific evaluation of the quality, safety and efficacy of medicinal products. Currently the CHMP's clinical assessment is mainly based on data from clinical summaries and information reported in clinical study reports. This data is provided in a format that does not directly allow disaggregation or any other form of further analysis.

However, for certain regulatory procedures, regulators may benefit from having access to clinical study data during the assessment of the medicinal product. Access to clinical study data can assist regulators in understanding the submitted evidence and therefore inform the regulatory decisions on the benefit-risk balance of the product.

The EMA performed a retrospective review of previous assessment experiences with clinical study data, including the experiences of other international regulatory agencies for whom clinical study data analysis forms part of the assessment process. Based on this review, the following potential benefits of analysing and visualising data from clinical studies to support the regulatory assessment have been identified for selected key stakeholders:

¹ Formally referred to as proof-of-concept pilot on the submission and analysis of raw data

² Clinical studies include clinical trials as well as non-interventional studies in accordance with the definitions set out in Article 2 of Regulation (EU) No 536/2014.



- EU patients: Faster access to innovative, safe and effective medicines; Improved confidence in regulatory decision-making; Refined product labelling/targeting of subgroups within the recommended indications; Facilitation of cross-product analyses.
- Network/EU health agencies: Improved understanding of clinical study results to inform regulatory decision making; Reduced need to put questions of data interpretation to the applicant; Facilitation of cross-product analyses; Optimised use of inspections.
- Applicants/Marketing authorisation holders (MAHs): Workload reduction due to fewer complex questions; Shorter clock-stops; Earlier authorisation.

The PoC clinical study data pilot will investigate a subset of the potential benefits listed above in line with the defined scope. For example, cross-product analyses are not in scope of the pilot.

Objectives

The joint Big Data Task Force of EMA and the Heads of Medicines Agencies (HMA) proposed ten priority recommendations for the European Medicines Regulatory Network (EMRN) to realise the potential of Big Data. One of the priority actions recommends building EU Network capability to analyse Big Data via building computing capacity to receive, store, manage and analyse large data sets including patient level data (see [HMA-EMA Joint Big Data Steering group Workplan 2023-2025](#) and the [Committee for Medicinal Products for Human Use \(CHMP\) work plan 2024](#)). The joint Big Data Task Force recommended conducting a PoC pilot to investigate the benefits of visualising and analysing clinical study data to support the scientific assessment of medicinal products and to identify the associated operational, resource and technological needs.

Learnings from the PoC pilot will be assessed by documenting practical learnings, e.g. on operational, resource and technological needs, and collecting feedback from all stakeholders involved, e.g. on the added value to the assessment process and operational aspects. This will include feedback from the Rapporteurs' assessment team, the Agency, and the applicant or MAH of the regulatory procedures concerned by the PoC pilot phase.

Legal basis

Clinical study data in electronic structured format is currently not systematically included as part of marketing authorisation and post-authorisation applications submitted to EMA. However, the Regulations which govern the work carried out by EMA allow for request of clinical study data during the assessment process.

In accordance with Article 7(c) of Regulation (EC) No 726/2004, the CHMP may request that the applicant supplements the particulars accompanying the application (e.g. clinical study data) within a specific time period in order to further qualify, as appropriate, the quality, safety and efficacy of a medicinal product. Article 16.3 of Regulation (EC) 1234/2008 provides a similar possibility for Type II variations applications. Under the terms of these Regulations, the applicant/MAH must answer such requests fully and promptly.

For the PoC pilot, applicants/MAHs with a centralised marketing authorisation/ post-authorisation application submitted to EMA that falls within the scope of the pilot will be invited to participate in the pilot on a voluntary basis. The applicant/MAH will be asked to confirm their participation in the PoC pilot via a 'pilot participation letter'.

In processing the clinical study data, the Agency and National Competent Authorities (NCAs) in Union Member States will ensure personal data are protected in full compliance with the provisions of the

Union Data Protection Regulation (EUDPR)³ and the General Data Protection Regulation (GDPR)⁴. A Data Protection Impact Assessment for the clinical study data PoC pilot has been performed in 2022. The corresponding Data Protection Notice ([link](#)) and the Records of Processing Activity ([link](#)) are available on EMA's website.

Timelines and scope

The PoC pilot has been launched in September 2022, i.e. the date when clinical study data may be submitted for the first regulatory procedure included in the PoC pilot. The PoC pilot has initially been designed with an inclusion target of approximately ten procedures and an estimated duration of two to three years. Building on the insights the pilot has generated so far and captured in the pilot's interim report ([link](#)), the pilot is now extended until further notice. This will allow for inclusion of additional procedures, beyond the initially targeted number of ten applications. The extension aims to generate further learnings on the use of clinical study data in support of regulatory assessment, with a focus on addressing remaining knowledge gaps and further validation of the already identified benefits of clinical study data into regulatory decision-making.

Regulatory procedures meeting the following criteria will be eligible for the pilot:

- **Type of regulatory procedures**: Initial Marketing Authorisation Applications (iMAAs) and post-authorisation applications (e.g. variations or extension applications) submitted centrally to EMA are in scope for the upcoming PoC pilot with a primary focus on iMAAs. For variations, Type II variations with proposed change(s) to therapeutic indication(s) will be targeted.
- **Type of data**: Regulatory procedures that include data from clinical studies. The focus will be on analyses of clinical data to inform the benefit-risk assessment (clinical efficacy and modelling and simulation, including e.g. population pharmacokinetic/dynamic modelling, physiological based pharmacokinetic modelling). The pilot will also include analyses to inform the selection of sites for inspection of compliance with Good Clinical Practice.
- **Clinical context**: No restrictions are defined in relation to the disease area, the therapeutic indication, or the type and number of clinical studies presented in the application. However, the pilot intends to include a variety of regulatory procedures.

It is intended to select regulatory procedures at an early stage, preferably after the submission of the letter of intent and before submission of the application. The decision on whether a procedure may be included in the PoC pilot will be made by the CHMP Rapporteurs appointed to assess the specific marketing authorisation/variation application.

Inclusion of a regulatory procedure in the PoC pilot will not delay the adoption of the scientific opinion by the CHMP. The Agency shall ensure that the opinion is adopted within the legal timeframes as laid out in Article 6 of Regulation (EC) No 726/2004 for iMAAs or in the Commission Regulation (EU) No 712/2012 for variations.

Terms of participation

For regulatory procedures which are selected for the PoC pilot the following considerations and requirements apply:

³ [Regulation \(EU\) 2018/1725](#) of the European Parliament and 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.

⁴ [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).

- **Data standards:** Data from clinical trials should comply with Clinical Data Interchange Standards Consortium (CDISC) Analysis Data Model (ADaM) and Study Data Tabulation Model (SDTM) study data standards. Furthermore, the Define-XML and optionally also the Analysis Results Metadata (ARM for Define-XML) should be submitted. Where a similar submission is planned/submitted to the FDA or PMDA, the same data standards may be followed. There are no specific requirements for non-interventional study data.
- **Type of analyses:** The decision about which analyses should be performed to support the benefit-risk assessment (clinical efficacy and modelling and simulation, including e.g. population pharmacokinetic/dynamic modelling, physiological based pharmacokinetic modelling), will be taken by the CHMP Rapporteurs. Clinical study data analysis will be performed by either the CHMP Rapporteur teams at the NCAs of Member States, EMA staff or EMA contractors operating to the same standards of data security as EMA staff.
- **Communication of results:** Analysis results that are considered of relevance to the benefit-risk assessment, will be included in the assessment report and thus shared with the applicant together with the relevant information about the underlying analysis. Furthermore, applicants/MAHs might be asked to replicate the analysis results via the list of questions, list of outstanding issues or requests for supplementary information.

A Questions and Answers document for applicants/MAHs on the PoC pilot provides more details on the terms of participation ([link](#)).

Ways for applicants or MAHs to become involved

Applicants/MAHs can contact EMA via rawdatapilot@ema.europa.eu to express interest in participating in the PoC pilot or to ask further questions. Since the PoC pilot will include regulatory procedures providing the CHMP Rapporteurs' agreement, not all applicants/MAHs who express interest might be able to participate. If a specific procedure is deemed suitable for the PoC pilot by the CHMP Rapporteurs, applicants/MAHs may also be contacted directly by the EMA and asked whether the applicant/MAH would be willing to participate.

At the end of the PoC pilot the Agency will organise a workshop with external stakeholders to present and discuss the final learnings from the PoC pilot. A summary of the final outcomes of the PoC pilot will also be published respecting commercially confidential information.