

Concept Paper

Q12: Regulatory and Technical Considerations for Pharmaceutical Product Lifecycle Management

Endorsed by the Management Committee on 30 March 2020

Type of Harmonisation Action Proposed

Establishment of an Implementation Working Group (IWG) to prepare a comprehensive training programme and associated materials to facilitate an aligned interpretation and a harmonized implementation of ICH Q12 in ICH and non-ICH regions.

Statement of the Perceived Problem:

ICH Q12 Regulatory and Technical Considerations for Pharmaceutical Product Lifecycle Management is a quality guideline that provides a framework to facilitate the management of post-approval CMC changes in a more predictable and efficient manner. It includes several tools and enablers that will constitute new or modified regulatory approaches in multiple regions, and because of this, globally aligned implementation is critical to realizing the full benefits of the guideline. As stated in the Introduction of the ICH Q12 guideline, ‘Regulatory Members of ICH are encouraged to provide publicly available information, preferably on their website, about the implementation of ICH Q12 in their region, especially with regard to regulatory considerations’ and therefore it should be noted that the extent of and the progress with the implementation is subject to the regulatory frameworks in place in the various ICH regions. Moreover, the principles described in Q12 build on the concepts in Pharmaceutical Development (ICH Q8(R2)), Quality Risk Management (ICH Q9), Pharmaceutical Quality System (ICH Q10), and Development and Manufacture of Drug Substances (ICH Q11). In the implementation of these as well as more recent guidelines such as Elemental Impurities (ICH Q3D), significant benefits were realised through the preparation and distribution of detailed training materials and implementation aids. Given this experience and considering the extensive comments that the ICH Q12 EWG received during the public comment period, there is significant demand for the development of training materials that will address the implementation challenges and support the smooth implementation of ICH Q12.

Issues to be Resolved:

In order to develop the training programme, the following activities and outputs should be addressed:

- Training materials including:
 - General overview of each section of the guideline
 - Case studies providing examples of application of the guideline to different product types (e.g., chemical and biological drug substances and products, vaccines, drug-device combination products)

- Expert support to the roll out of the training programme (through workshops and/or preparation of web-based sessions) in ICH and non-ICH regions to both regulators and industry.
- Updates to the training materials to reflect experiences gained by the various ICH constituencies from ongoing implementation activities.

Background to the Proposal:

Throughout the development of the guideline, external audiences, constituents and interested parties have clearly communicated the novelty and complexity of the primary tools and enablers described in this guideline. This was reflected during the public comment period as well as by constituent reviews received as the guideline was developed. At the time of *Step 4* publication, many regions will need to take steps to implement all of the Q12 tools and enablers. Development of training materials and the formation of an IWG could provide an important resource to groups (both regulators and industry) implementing the guideline.

While the guideline provides the framework and limited examples, it cannot provide the detailed examples to more expressly demonstrate how the tools and enablers should be applied across the breadth of products included in the guideline's scope (new and marketed products, chemical and biological drug substances and drug products, drug-device combination products). Further, the successful implementation of Q12 will require understanding of the guideline's principles, tools, and enablers by both regulatory assessors and inspectors as well as by industry; comments received during constituent review and the public consultation period highlighted these challenges. Similar comments and concerns were raised after the publication of ICH Q8-Q11 and ICH Q3D which resulted in the formation of IWGs to address the challenges highlighted.

Consequently, the development of a comprehensive training programme and supporting documentation sponsored by ICH is considered necessary to ensure the proper interpretation and effective utilisation by industry and regulators alike. It is envisioned that the roll out of training materials and/or programmes should take place in both ICH and non-ICH regions. This would provide an effective mechanism to provide more clarity, improve understanding of how to apply the tools and enablers, and remove ambiguities in interpretation to enable a harmonised implementation of Q12 on a global basis.

Type of Expert Working Group Recommended:

Given the depth and breadth of experience of the current EWG members, it is recommended that the IWG membership be the same as the current Q12 EWG. Work will be accomplished through focused drafting efforts of a subgroup, with input from the entire IWG gathered and discussed via email and teleconferences.

Indicate if the scope of activities of the Working Group would warrant expertise from any of the following fields:

- Advanced Therapy Medicinal Products
- Bioequivalence Studies

- Biostatistics and clinical trial methodology
- Biotechnology-derived products
- Electronic standards or technical considerations
- Generics
- Good Manufacturing Practices
- Non-clinical safety
- Novel dosage forms
- Pharmacogenomics
- Pharmacovigilance
- Pediatrics
- Post-marketing clinical trials
- Pre-marketing clinical trials
- Small Molecules/New chemical entities
- Therapeutic area-specific Safety/Efficacy (please specify): _____
- Vaccines
- Other (please specify): _drug-device combination products_____

Timing:

Agreement of Concept Paper by the Q12 EWG	November 20, 2019
Adoption of Concept Paper by the ICH Management Committee	March 2020
Establishment of the ICH Q12 IWG	March 2020
IWG development of general training materials	November 2019 – May 2020
IWG to finalize general training materials and develop case studies	May 2020
Training materials finalised	November 2020