ICH Q12 - Technical and Regulatory Considerations for Pharmaceutical Product Lifecycle Management

Training Material
Module 1 – Introduction

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International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use

Legal Notice

Background and Objectives

- A change is always associated with a risk
- The level of risk to product quality when implementing a change depends to a great extent on the depth of scientific knowledge of product and process gained during development and commercial manufacturing
- Quality guidelines, as captured in ICH Q8(R2) and Q11, are the basis for acquiring scientific product and process knowledge in conjunction with the Quality Risk Management approach described in ICH Q9
- Other ICH Q-guidelines should be consulted

Background and Objectives

- The potential regulatory reporting category for a change is associated with the knowledge about the risk of the change including control measures (control strategy) to mitigate the risk
- ***ICH Q12 provides guidance for a risk-based approach to facilitate post-approval Chemistry, Manufacturing and Controls (CMC) changes in a more efficient and predictable manner***
- **Reminder:** All changes performed (requiring a regulatory action or not) must be managed under a Quality System as described in ICH Q10

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Scope

- Pharmaceutical drug substances and pharmaceutical drug products, including approved/licensed products
- Chemical and biotechnological/biological products that require a marketing authorisation, including vaccines and Advanced Therapies Medicinal Products (ATMPs)
- Drug-device combination products that meet the definition of a pharmaceutical or biotechnological/ biological product
- **Note:** Changes necessary to comply with new or revised pharmacopoeial monographs are out of scope of ICH Q12

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Essential elements to be considered for a change

- **Identification** of those elements subject to a change:

  See *Chapter 3 Established conditions (ECs)*

  - Distinction is made between those changes which need a regulatory action (ECs) and those which relate only to supportive information

- **Reporting levels** associated with the change:

  See *Chapter 2 Categorization of changes*

  - Type of communication (reporting) between Regulatory Authorities and Applicants
  - The reporting levels (prior approval, notification moderate and low) are based on the level of risk associated with the change

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Essential elements to be considered for a change

- **Quality System**: Changes have to be managed under a Quality System (incl. across the supply chain):

  See Chapter 6 Pharmaceutical Quality System (PQS)

  - Not a new requirement and already foreseen under GMP
  - Due to globalization and increased outsourcing, the oversight (control) of the entire supply chain becomes increasingly important

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Essential elements to be considered for a change

- **Overview** of ECs, Reporting Categories, PACMPs, Post-approval CMC commitments:

  See Chapter 5 Product Lifecycle Management (PLCM) Document

  - Allows better management of changes for both Industry and Regulators

- **Role** (Complementary) of Assessors and Inspectors:

  See Chapter 7 Relationship between Regulatory Assessment and Inspection

  - Highlights the importance of communication between Assessors and Inspectors in relation to post-approval changes

Other tools facilitating a change

- **Tool** to facilitate a change:

  See Chapter 4 Post Approval Change Management Protocol (PACMP)

  - Step 1 of the PACMP, submitted in advance of a planned change and after authorization, provides predictability for the implementation of this change (step 2)

Other tools facilitating a change

- **<u>Additional approaches</u>** to facilitate changes:

  See Chapter 8 Structured Approaches for Frequent CMC Post Approval Changes

  - Guidance for a structured approach for frequent post-approval changes with analytical methods as an example

  See Chapter 9 Stability Data Approaches to Support the Evaluation of CMC Changes

  - Use of appropriate tools (e.g., accelerated/ stress studies) and/ or confirmatory stability studies to enable more timely implementation of the change

Use of ICH Q12 Tools

- The next slide is a diagram illustrating how the different elements described in ICH Q12 can be used during the entire product lifecycle

- This applies not only for an initial marketing authorisation application but also for an existing commercial product when ECs are introduced retrospectively

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*Use of ICH Q12 **Tools** in Product Lifecycle*