
Guidance for Industry

Q4B Evaluation and Recommendation of Pharmacopoeial Texts for Use in the ICH Regions

Annex 14 Bacterial Endotoxins Test General Chapter

**U. S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)**

**October 2013
ICH**

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Annex 14
Bacterial Endotoxins Test General Chapter

This guidance represents the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the FDA staff responsible for implementing this guidance. If you cannot identify the appropriate FDA staff, call the appropriate number listed on the title page of this guidance.

I. INTRODUCTION (1)²

This annex is one in a series of guidance documents that describe the evaluations and recommendations by the Q4B Expert Working Group (EWG) of selected pharmacopoeial texts to facilitate their recognition by regulatory authorities for use as interchangeable in the ICH regions. Implementation of the Q4B annexes is intended to avoid redundant testing by industry. For general information on the Q4B process, the reader is referred to the core guidance *Q4B Evaluation and Recommendation of Pharmacopoeial Texts for Use in the ICH Regions*.³

This annex is the result of the Q4B process for the Bacterial Endotoxins Test General Chapter. The proposed texts were submitted by the Pharmacopoeial Discussion Group (PDG).

FDA's guidance documents, including this guidance, do not establish legally enforceable responsibilities. Instead, guidances describe the Agency's current thinking on a topic and should

¹ This guidance was developed within the Expert Working Group (Quality) of the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) and has been subject to consultation by the regulatory parties, in accordance with the ICH process. This document has been endorsed by the ICH Steering Committee at *Step 4* of the ICH process, October 2012. At *Step 4* of the process, the final draft is recommended for adoption to the regulatory bodies of the European Union, Japan, and the United States.

² Arabic numbers reflect the organizational breakdown of the document endorsed by the ICH Steering Committee at Step 4 of the ICH process, October 2012.

³ We update guidance documents periodically. To make sure you have the most recent version of a guidance, check the FDA Drugs guidance page at <http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm> or the FDA Biologics guidance page at <http://www.fda.gov/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/default.htm>.

Contains Nonbinding Recommendations

be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should* in Agency guidances means that something is suggested or recommended, but not required.

II. Q4B OUTCOME (2)

A. Analytical Procedures (2.1)

The ICH Steering Committee, based on the evaluation by the Q4B Expert Working Group (EWG), recommends that the analytical procedures described in the official pharmacopoeial texts, *European Pharmacopoeia* (Ph. Eur.): 2.6.14. Bacterial Endotoxins, *Japanese Pharmacopoeia* (JP): 4.01 Bacterial Endotoxins Test, and *United States Pharmacopeia* (USP) General Chapter <85> Bacterial Endotoxins Test, can be used as interchangeable in the ICH regions subject to the following conditions:

1. (2.1.1) Any of the three techniques can be used for the test. In the event of doubt or dispute, the gel-clot limit test should be used to make the final decision on compliance for the product being tested.
2. (2.1.2) The USP, JP, and Ph. Eur. reference standards are considered interchangeable because they have been suitably calibrated against the WHO (World Health Organization) International Standard for Endotoxin.
3. (2.1.3) In the section *Photometric quantitative techniques, Preparatory testing, Test for interfering factors*, the user should perform the test on solutions A, B, C, and D on at least two replicates using the optimal conditions as recommended by the lysate manufacturer.

B. Acceptance Criteria (2.2)

The evaluated texts did not contain acceptance criteria. Endotoxin limits should be specified in the application dossier unless otherwise specified in an individual monograph.

III. TIMING OF ANNEX IMPLEMENTATION (3)

When this annex is implemented (incorporated into the regulatory process at ICH Step 5) in a region, it can be used in that region. Timing might differ for each region.

IV. CONSIDERATIONS FOR IMPLEMENTATION (4)

A. General Consideration (4.1)

When sponsors or manufacturers change their existing methods to the implemented Q4B-evaluated pharmacopoeial texts that are referenced in section II.A (2.1) of this annex, any change notification, variation, and/or prior approval procedures should be handled in accordance with established regional regulatory mechanisms pertaining to compendial changes.

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B. FDA Consideration (4.2)

Based on the recommendation above, and with reference to the conditions set forth in this annex, the pharmacopoeial texts referenced in section II.A (2.1) of this annex can be considered interchangeable. However, FDA might request that a company demonstrate that the chosen method is acceptable and suitable for a specific material or product, irrespective of the origin of the method.

C. European Union Consideration (4.3)

For the European Union, regulatory authorities can accept the reference in a marketing authorization application, renewal or variation application citing the use of the corresponding text from another pharmacopoeia as referenced in section II.A (2.1), in accordance with the conditions set out in this annex, as fulfilling the requirements for compliance with the Ph. Eur. Chapter 2.6.14. on the basis of the declaration of interchangeability made above.

D. MHLW Consideration (4.4)

The pharmacopoeial texts referenced in section II.A (2.1) of this annex can be used as interchangeable in accordance with the conditions set out in this annex. Details of implementation requirements will be provided in the notification by MHLW when this annex is implemented.

E. Health Canada Consideration (4.5)

In Canada any of the pharmacopoeial texts cited in Section 2.1 of this annex and used in accordance with the conditions set out in this annex can be considered interchangeable.

REFERENCES USED FOR THE Q4B EVALUATION (5)

A. (5.1) The PDG Stage 5B sign-off document (Rev. 1 – Correction 1): *Japanese Pharmacopoeial Forum*, Volume 18, number 4 (December 2009).

B. (5.2) The pharmacopoeial references for the Bacterial Endotoxins Test General Chapter for this annex are:

1. (5.2.1) *European Pharmacopoeia* (Ph. Eur.): Supplement 6.6 (official January 1, 2010), Bacterial Endotoxins (reference 01/2010:20614).

2. (5.2.2) *Japanese Pharmacopoeia* (JP): General Test 4.01 Bacterial Endotoxins Test as it appears in the JP Sixteenth Edition (March 24, 2011, The Ministry of Health, Labour and Welfare Ministerial Notification No.65).

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3. (5.2.3) *United States Pharmacopeia* (USP): Text for <85> Bacterial Endotoxins Test, USP 33 Reissue (published April 2010 and official October 1, 2010).