WHO Technical Report Series

848

WHO EXPERT COMMITTEE ON BIOLOGICAL STANDARDIZATION

Forty-fourth Report

World Health Organization

Geneva 1994

WHO Library Cataloguing in Publication Data

WHO Expert Committee on Biological Standardization
WHO Expert Committee on Biological Standardization:
forty-fourth report.

(WHO technical report series ; 848)

1. Biological products – standards I. Series

ISBN 92 4 120848 1 (NLM Classification: QW 800)
ISSN 0512-3054

Printed in Switzerland
94/10113 – Benteli – 7000

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Geneva, 12–19 October 1993

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Introduction

The WHO Expert Committee on Biological Standardization met in Geneva from 12 to 19 October 1993. The meeting was opened on behalf of the Director-General by Dr F. Antezana, Assistant Director-General.

Dr Antezana emphasized the importance of WHO's biological standardization programme, and acknowledged with gratitude that its international reputation and success had in great measure been due to the considerable support given by the International Laboratories for Biological Standards, the donors of reference materials and the participants in WHO meetings and collaborative studies. The Organization was particularly grateful that, despite substantially reduced funding from WHO, the International Laboratories had remained undiminished in their support to the programme for preparing and distributing international reference materials.

General

International biological standardization

WHO has a long-standing mandate from the World Health Assembly to establish appropriate primary biological standards against which others can be calibrated. The international biological standardization programme was set up in 1921 by the Health Organization of the League of Nations, and since 1947 has continued under the auspices of WHO. The Expert Committee on Biological Standardization, which first met in 1947, was created to serve as the international focal point for evaluating candidate preparations and establishing International Standards for the activity and identity of biological products. As a consequence of the work of the Committee and of WHO's International Laboratories for Biological Standardization, biological standards are now universally used and are fundamental to the control of almost all biological medicines and, to a lesser extent, of diagnostic products, whether prepared by conventional means or by newer biotechnological methods.

When national and regional reference materials (including in-house working standards) are developed independently or with multiple calibration steps, there is a risk that unnecessary variability and discontinuity will occur in relation to the primary WHO standard. The Committee stressed that there was a clear need for both types of standards, and it was therefore essential that the activities of the various organizations involved in their establishment be coordinated and integrated to the greatest extent possible.

The Committee was informed that the regulatory authorities and the pharmacopoeia commissions of Europe, Japan and the United States had recently become more active in the standardization of biological products, especially those prepared by biotechnological processes. A

meeting on this topic had been held in Verona, Italy, in April 1993, and the issues had also been considered at a meeting of the United States Pharmaceutical Manufacturers Association in Washington in September 1993.

The increasing involvement of regulatory and pharmacopoeial authorities in biological standardization raises four major, interrelated issues: (1) the legal status and responsibilities of the different pharmacopoeia commissions and their relationships to regulatory and control authorities; (2) the purpose, need for and practical value of pharmacopoeial monographs for products of biotechnology; (3) the coordination of collaborative studies conducted by WHO and the pharmacopoeia commissions; and (4) the relationship between WHO international reference materials and pharmacopoeial standards. Of these, the Committee discussed the third and fourth points, which it considered directly relevant to its own responsibilities and work, and made the following recommendations:

1. The pharmacopoeia commissions should be encouraged to coordinate among themselves the development of pharmacopoeial reference materials.
2. The biological standardization activities of WHO and the pharmacopoeia commissions should be harmonized, especially in the context of relating pharmacopoeial reference materials to the corresponding WHO standards.
3. WHO and the pharmacopoeia commissions should coordinate, and preferably integrate, their collaborative studies on new reference materials.

Development and distribution of International Biological Standards and Reference Reagents

The Committee recognized a need for better mechanisms to advise WHO of products under development for which International Standards and Reference Reagents would be required, so that priorities could be set and collaborative studies planned. The Committee therefore requested the Secretariat to seek the help of national regulatory and control authorities, relevant associations of manufacturers and the major pharmacopoeia commissions. Regulatory and control authorities would be aware of products under development and in early clinical trials whose quality control involved a bioassay for which a biological reference material would be needed. In addition, individual companies could contact WHO directly and in confidence when they were developing pharmaceutical or diagnostic products whose control would rely on a bioassay. The pharmacopoeia commissions and the European Community Measurement and Testing Programme (Community Bureau of Reference) could also be