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# **WHO Expert Committee on Biological Standardization**

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Thirty-first Report

World Health Organization  
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**WHO EXPERT COMMITTEE ON BIOLOGICAL  
STANDARDIZATION**

**Thirty-first Report**

**Annex 5**

**REQUIREMENTS FOR POLIOMYELITIS  
VACCINE (ORAL)**

(Requirements for Biological Substances No. 7)  
(Revised 1971)

**Addendum 1980**

**CORRIGENDUM**

Page 170, lines 4–5

*Delete:* ... Stored at 40 °C, the decanted medium may be  
used for further subcultivation of cells.

*Insert:* ... Stored at 4 °C, the decanted medium may be  
used for further subcultivation of cells.

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## WHO EXPERT COMMITTEE ON BIOLOGICAL STANDARDIZATION

Geneva, 15-22 April 1980

### Members

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Professor G. F. Gause, Director, Institute of New Antibiotics, Moscow, USSR  
Dr J. W. Lightbown, Head, Division of Antibiotics, National Institute for Biological Standards and Control, London, England  
Professor B. Lunenfeld, Director, Institute of Endocrinology, and Chief, Division of Laboratories, Chaim Sheba Medical Centre, Tel Hashomer, and Professor of Life Sciences, Bar Ilan University, Israel (*Chairman*)  
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Professor G. Swaniker, Head, Department of Chemical Pathology, University of Ghana Medical School, Accra, Ghana (*Rapporteur*)  
Mr J. R. Thayer, Head, Antibiotics Section, National Biological Standards Laboratory, Canberra, Australia  
Dr W. W. Wright, Senior Scientist, The United States Pharmacopeia, Rockville, MD, USA

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- Dr R. J. Olds, Animal Health Officer (Bacterial Diseases), FAO, Rome, Italy

### Secretariat

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Dr V. F. Davey, Technical Director, Commonwealth Serum Laboratories, Parkville, Victoria, Australia (*Consultant*)  
Mr I. Davidson, Head, Biological Products and Standards Department, Central Veterinary Laboratory, Weybridge, Surrey, England (*Consultant*)  
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Dr J. D. van Ramshorst, Scientist, Biologicals, WHO, Geneva, Switzerland  
Dr D. P. Thomas, Head, Division of Blood Products, National Institute for Biological Standards and Control, London, England (*Consultant*)

# WHO EXPERT COMMITTEE ON BIOLOGICAL STANDARDIZATION

## Thirty-first Report

### GENERAL

The WHO Expert Committee on Biological Standardization met in Geneva from 15 to 22 April 1980. The meeting was opened on behalf of the Director-General by Dr V. Fattorusso, Director, Division of Prophylactic, Diagnostic, and Therapeutic Substances.

The Committee has been unwilling for many years to set up biological standards for antibiotics used in the treatment of malignant tumours when the only known way of measuring their biological activity is a microbiological assay not involving mammalian cells, particularly for antitumour antibiotics that are complex mixtures of related biologically active components—e.g., bleomycin. However, with the development of analytical techniques that have allowed the composition of a given preparation to be measured precisely and the variability in composition of different batches to be maintained within acceptable limits, it was considered that an international reference material for bleomycin (bleomycin complex A<sub>2</sub>/B<sub>2</sub>) would serve a useful purpose. The International Reference Preparation of Bleomycin has now been established and it will be used for standardization in microbiological assay. Accelerated degradation studies of the International Reference Preparation of Bleomycin have demonstrated, however, that the reservations of the Committee on the value of microbiological assays of antitumour antibiotics were soundly based. Potencies of bleomycin preparations estimated by microbiological assays in terms of the international unit of activity are likely to provide relative measures of antitumour activity only if the component composition of each preparation has been shown by chemical analysis to be within acceptable limits. Such limits are included in Guidelines for the Quality Assessment of Antitumour Antibiotics adopted by the Committee.

These guidelines are intended as an interim measure until definitive international specifications for antitumour antibiotics are adopted. National authorities in countries that import antitumour antibiotics and their dosage forms should find the guidelines helpful in examining and judging the quality of batches of these materials. The guidelines provide information on the characteristic chemical, physical, and bio-

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