



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
ORGANIZATION

*working party of
the regional committee*

WORLD
HEALTH
ORGANIZATION



92nd Meeting
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Provisional Agenda Item 9

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RESOLUTIONS OF THE THIRTY-SEVENTH WORLD HEALTH ASSEMBLY OF INTEREST TO
THE EXECUTIVE COMMITTEE

The Director of the Pan American Sanitary Bureau submits to the attention of the Executive Committee the following resolutions adopted by the Thirty-seventh World Health Assembly:

- WHA37.3 Election of Members Entitled to Designate a Person to Serve on the Executive Board
- WHA37.14 Basic Plan on Priority Health Needs of Central America and Panama
- WHA37.15 Health for All by the Year 2000
- WHA37.16 Technical Cooperation among Developing Countries in Support of the Goal of Health for All
- WHA37.17 Monitoring Progress in Implementing Strategies for Health for All by the Year 2000
- WHA37.18 Prevention and Control of Vitamin A Deficiency and Xerophthalmia
- WHA37.21 Restructuring the Technical Discussions
- WHA37.23 Collaboration with the United Nations System: General Matters--Abuse of Narcotic and Psychotropic Substances
- WHA37.27 International Standards and Units for Biological Substances
- WHA37.30 Infant and Child Nutrition
- WHA37.31 The Role of the Universities in the Strategies for Health for All
- WHA37.32 Action Programme on Essential Drugs and Vaccines
- WHA37.33 Rational Use of Drugs

Annexes

ELECTION OF MEMBERS ENTITLED TO DESIGNATE A PERSON
TO SERVE ON THE EXECUTIVE BOARD

The Thirty-seventh World Health Assembly,

Considering that the entry into force of the amendments to Articles 24 and 25 of the Constitution, increasing the number of members of the Executive Board from thirty to thirty-one, calls for amendments to Rules 102 to 104 of the Rules of Procedure of the World Health Assembly;

ADOPTS the following amendments to the Rules of Procedure of the World Health Assembly:

Rule 102

Replace the present text by the following text:

The General Committee, having regard to the provisions of Chapter VI of the Constitution, to Rule 100, to the suggestions placed before it by Members, and to the candidatures put forward by the members of the General Committee during its meeting, shall by secret ballot draw up a list consisting of at most fifteen Members and at least the same number of Members as the number of seats to be filled. This list shall be transmitted to the Health Assembly at least twenty-four hours before the Health Assembly convenes for the purpose of the annual election of Members to be entitled to designate a person to serve on the Board.

The General Committee shall recommend in such list to the Health Assembly the Members which, in the Committee's opinion, would provide, if elected, a balanced distribution of the Board as a whole.

Members included in such list other than the Members which, in the Committee's opinion, would provide, if elected, a balanced distribution of the Board as a whole may withdraw their candidatures from the list by notification to the President not later than the closure of working hours on the day preceding the annual election by the Health Assembly of Members to be entitled to designate a person to serve on the Board. Any such withdrawal shall be published in the Journal of the Health Assembly and announced by the President prior to the commencement of voting.

Rule 103

Delete the word "ten" in the first sentence.

Rule 104

Delete the word "ten" in the second sentence.

BASIC PLAN ON PRIORITY HEALTH NEEDS OF CENTRAL AMERICA AND PANAMA

The Thirty-seventh World Health Assembly,

Informed of the initiative taken by the governments of the countries of Central America and Panama, embodied in the "basic plan on priority health needs" in that subregion, which they have drawn up in concert and are mutually committed to executing;

Considering the special significance of this initiative for social development, for the solution of health problems, and as a link to promote understanding, solidarity and peace among the peoples of Central America and Panama at a particularly difficult juncture in their history;

Noting that this initiative is in keeping with the principles of solidarity and cooperation that guide WHO's activities aimed at the attainment of the goal of "Health for All",

1. CONGRATULATES the governments of the countries of Central America and Panama on this initiative;
2. EXPRESSES its full support for the initiative and the measures for implementing it properly;
3. INVITES WHO Member States to support the initiative effectively and to the fullest extent possible;
4. RECOMMENDS that the Director-General take appropriate action and seek any possible means of supporting the implementation of activities aimed at ensuring the success of the initiative; and
5. REQUESTS the Director-General to submit a report on the matter to the Thirty-ninth World Health Assembly.

Twelfth plenary meeting, 15 May 1984
A37/VR/12

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HEALTH FOR ALL BY THE YEAR 2000

The Thirty-seventh World Health Assembly,

Noting with satisfaction the decisions taken by a group of Member States - the Non-aligned and other Developing Countries - concerning the implementation of the Strategy for Health for All by the Year 2000;¹

Recognizing the importance of the decisions adopted by the Non-aligned and other Developing Countries in their resolutions on:

(i) implementation of the Strategy for Health for All by the Year 2000;

(ii) Technical Cooperation among Developing Countries to attain the goal of Health for All by the Year 2000;

1. CONGRATULATES the Non-aligned and other Developing Countries on their continuing political commitment and vigorous efforts to attain the goal of Health for All;

2. REQUESTS the Director-General to continue to mobilize support for these and other Member countries for the implementation of their strategies for achieving Health for All, and for technical cooperation among them and to report periodically on the progress achieved through his annual reports to the Health Assembly.

Twelfth plenary meeting, 15 May 1984
A37/VR/12

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¹ Document A37/INF.DOC./6.

TECHNICAL COOPERATION AMONG DEVELOPING COUNTRIES
IN SUPPORT OF THE GOAL OF HEALTH FOR ALL

The Thirty-seventh World Health Assembly,

Reaffirming its conviction that technical cooperation among developing countries (TCDC) constitutes an important vehicle for health development and for the implementation of national health strategies;

Bearing in mind the resolutions of the United Nations General Assembly encouraging technical cooperation among developing countries, and its endorsement of the Declaration and the Plan of Action of the Buenos Aires Conference on TCDC in 1978;

Recalling resolution WHA30.43 which called on all countries to collaborate in the achievement of the goal of health for all by the year 2000, and resolution WHA32.30 endorsing the Alma-Ata Declaration of the International WHO/UNICEF Conference on Primary Health Care;

Taking into account resolution WHA31.41 which urged the strengthening of technical cooperation among developing countries and the active collaboration between WHO and the developing countries in the promotion of such programmes;

Taking note of resolution WHA35.24, adopted by the World Health Assembly, congratulating the non-aligned and other developing countries on their expression of political commitment to the goal of health for all;

Noting with satisfaction the adoption by the Ministers of Health of non-aligned and other developing countries of a Medium-term Programme on TCDC for Health for All (1984-1989) and an Initial Plan of Action on TCDC for Health for All (1984-1985), as a contribution by developing countries towards the implementation of the Seventh General Programme of Work;

1. WELCOMES the launching by non-aligned and other developing countries of the Medium-term Programme (1984-1989), together with the Initial Plan of Action (1984-1985), being convinced that these initiatives will contribute to reinforcing the implementation of national health strategies;

2. CALLS UPON all Member States to give every possible support to this Programme and Plan of Action and to any other relevant programmes and activities based on TCDC, and to make optimal use of WHO resources, particularly at the country level, for carrying out TCDC activities;

3. ESPECIALLY CALLS UPON the developed countries to continue to provide the developing countries, particularly the least developed among them, with technical cooperation and financial resources through multilateral and bilateral channels, including WHO, to assist in carrying out these programmes;

4. EMPHASIZES in this connection the importance of reinforcing multilateral institutionalized cooperation within the framework of priorities fixed by the developing countries and including cooperation among these countries;

5. REQUESTS the Director-General to support these programmes drawing upon the technical and financial means at his disposal, and to mobilize technical and financial support for the Medium-term Programme, the Initial Plan of Action and other TCDC programmes and activities, by strengthening collaboration with other components of the United Nations system and with other international organization.

Twelfth plenary meeting, 15 May 1984
A37/VR/12

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MONITORING PROGRESS IN IMPLEMENTING STRATEGIES FOR
HEALTH FOR ALL BY THE YEAR 2000

The Thirty-seventh World Health Assembly,

Reaffirming resolutions WHA30.43, WHA34.36 and WHA35.23 concerning the policy, strategy and plan of action for attaining the goal of health for all by the year 2000;

Recalling resolution WHA33.17 concerning the concentration of the Organization's activities on support for the attainment of this goal;

Noting that the attainment of the goal of health for all by the year 2000 is intimately related to socioeconomic development and commitment to and the preservation of world peace;

Recognizing the determination of all countries to contribute fully to achieving the goal of health for all through reinforcement of individual and collective self-reliance, of which technical cooperation among developing countries is an essential element;

Aware that cooperation among all countries and support by developed countries and international organizations, including the principles of a new international economic order, can significantly contribute to a more rational use of available resources;

Recognizing that monitoring and evaluation are fundamental elements of the managerial process required for the implementation of the strategies, and that the commitment and courage of Member States and a spirit of mutual trust among them are essential for the effective implementation of the Strategy for Health for All;

Mindful that only three-quarters of the Member States have submitted progress reports in due time on the implementation of their national strategies;

Noting the progress made thus far in the implementation of the Strategy, but also being aware of the magnitude of the overall task and the relatively short period left to achieve the collectively agreed goal of health for all by the year 2000;

1. URGES Member States:

(1) to accelerate the reorientation and the modifications of health systems towards primary health care, further strengthen the managerial capacity of their health system, including the generation, analysis and utilization of the information needed, and emphasize continuing education of health personnel to support their health management process;

(2) to accord the highest priority to and assume full responsibility for the continuing monitoring and evaluation of their strategies, individually as part of their managerial process for national health development, and collectively in a spirit of mutual trust in order to identify jointly factors which contribute to or impede the implementation of the Strategy;

- (3) to further refine and update as necessary their national strategies and plans of action for health for all, with clearly defined objectives and targets and appropriate allocation of resources, and apply corrective measures required for accelerating the pace of implementation of their national strategies;
- (4) to promote the importance of multisectoral approaches and their linkages to achieve health for all;
- (5) to pay attention to the planning and evaluation of health manpower development programmes consonant with the needs of their health systems;
- (6) to accelerate efforts to mobilize national and external resources in support of activities that are essential to the implementation of the strategies, ensuring that these resources are adequately directed towards underserved and socially and geographically disadvantaged groups;
- (7) to use WHO's resources optimally, directing them to the mainstream of activities required to implement, monitor and evaluate the national strategy;
- (8) to consider the desirability of enacting health legislation incorporating the basic principles of health for all;

2. URGES the regional committees:

- (1) to give increased attention to the review and analysis of the findings of the monitoring and evaluation of national strategies by Member States in the region;
- (2) to identify factors and issues facilitating or impeding the implementation of national strategies in the region and promote the required action to foster positive factors and to resolve impeding issues;
- (3) to stress the importance of mutual cooperation among Member States in this process;
- (4) to carry out a first evaluation of the regional strategy in 1985 in keeping with the plan of action for implementing the Global Strategy for Health for All;

3. REQUESTS the Executive Board:

- (1) to continue to monitor actively the progress in implementing the Global Strategy, identifying issues and areas requiring action by Member States individually and collectively;
- (2) to participate actively in the Organization's efforts to support the Member States in the implementation of national strategies as well as the monitoring and evaluation activities;
- (3) to carry out a first formal evaluation of the Global Strategy and submit its report thereon to the Thirty-ninth World Health Assembly in 1986, in keeping with the plan of action;

4. REQUESTS the Director-General:

- (1) to focus further the resources of the Organization to accelerate and improve the implementation of the Strategy for Health for All;
- (2) to ensure the provision of intensive, appropriate and targeted support to Member States for the implementation, monitoring and evaluation of the Strategy, especially in countries where the needs are greatest and which are ready for it;
- (3) to call upon the developed countries to provide urgent and appropriate technical and economic support to developing countries on a bilateral basis or through WHO, other United Nations agencies and international organizations;

(4) to intensify technical cooperation with Member States in order to strengthen their managerial capacities, including monitoring and evaluation and the related generation, analysis and use of supporting information;

(5) to take steps to review the global indicators and to further develop practical tools of measurement for these indicators to help Member States in their monitoring of progress towards the targets of the strategy;

(6) to further strengthen collaboration within the United Nations system and with other intergovernmental, nongovernmental and voluntary organizations in their respective fields of competence to provide countries with technical and financial support in attaining the goal of health for all.

Twelfth plenary meeting, 15 May 1984
A37/VR/12

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PREVENTION AND CONTROL OF VITAMIN A DEFICIENCY AND XEROPHTHALMIA

The Thirty-seventh World Health Assembly,

Recalling resolutions WHA22.29, WHA25.55 and WHA28.54 on the prevention of blindness;

Recognizing the continuing great human suffering, and the considerable burden to both the individual and to society that is caused by nutritional blindness;

Considering that, in Asia alone, more than ten million children are affected by vitamin A deficiency and xerophthalmia; that more than one million of these become blind every year; that as many as seventy per cent. of this number die in the weeks immediately following the onset of blindness; and that the remainder are permanently blind;

Conscious that even mild cases of vitamin A deficiency and xerophthalmia contribute to increased morbidity and mortality in young children in many developing countries;

Considering that vitamin A deficiency and xerophthalmia are highly prevalent in Africa, Asia and the Western Pacific, and in limited areas of the Americas;

Aware that safe, effective and relatively inexpensive techniques exist to control vitamin A deficiency and xerophthalmia, in particular increased consumption of local foodstuffs rich in provitamin A, through periodic mass distribution of large doses of vitamin A, and the fortification of certain foods;

1. THANKS the Director-General for the updated information on selected global and regional trends in nutritional status and related indicators included in his report;
2. URGES all Member States to give high priority to the prevention and control of vitamin A deficiency and xerophthalmia wherever these problems exist through appropriate nutritional programmes as part of primary health care;
3. REQUESTS the Director-General:
 - (1) to give all possible support to Member States, as and when requested, in assessing the most appropriate approaches, in the light of national circumstances, needs and resources, to preventing and controlling vitamin A deficiency and xerophthalmia;
 - (2) to collaborate with Member States in the monitoring of the incidence and prevalence of vitamin A deficiency and xerophthalmia;
 - (3) to prepare suitable materials, for adaptation and use at the national level, for training health workers and development workers in the prevention of vitamin A deficiency, particularly through education in nutrition and by promoting the production of local foodstuffs rich in provitamin A, and in the early identification and treatment of vitamin A deficiency;

- (4) to coordinate with other intergovernmental organizations, and appropriate nongovernmental organizations, the launching and management of intensive and extensive international action to combat vitamin A deficiency, including the mobilization of financial and other resources required for such actions;
- (5) to report to the World Health Assembly on progress in this area.

Thirteenth plenary meeting, 16 May 1984
A37/VR/13

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RESTRUCTURING THE TECHNICAL DISCUSSIONS

The Thirty-seventh World Health Assembly,

Having considered the Director-General's report on restructuring the Technical Discussions,¹ and the Executive Board's recommendations thereon;

Recognizing that Technical Discussions continue to serve a useful purpose, since they provide an opportunity for participants to exchange views and experience on technical matters of global interest that are directly related to the objectives of the Organization, and constitute a valuable extension of the programme debates held at the Health Assembly itself;

1. DECIDES:

(1) that the Technical Discussions shall be continued and that they shall be held annually;

(2) that future Technical Discussions shall be devoted to subjects crucial to the attainment of health for all by the year 2000;

(3) that the duration of the Technical Discussions shall continue to be one-and-a-half days;

2. REQUESTS the Director-General in future years to try out experimentally alternative arrangements for the organization, scheduling and methods of work of the Technical Discussions, as indicated in the Director-General's report.

Fourteenth plenary meeting, 17 May 1984
A37/VR/14

¹ Document EB73/1984/REC/1, Annex 3.

COLLABORATION WITHIN THE UNITED NATIONS SYSTEM: GENERAL MATTERS

Abuse of Narcotic and Psychotropic substances

The Thirty-seventh World Health Assembly,

Recalling resolution WHA33.27 on the abuse of narcotic and psychotropic substances, adopted by the Thirty-third World Health Assembly in May 1980, and resolution EB73.R11 on the same subject;

Recognizing the dramatic global increase in drug addiction, particularly to cocaine, all the more alarming in that the young are the chief victims of narcotics dependence;

Considering that the efforts made by the different countries to combat and prevent drug addiction have been insufficient and that WHO is the agency which, by virtue of its responsibility for the health of the population, has an important role to play in stimulating more effective national efforts;

Noting with satisfaction that development of the WHO global programme on drug dependence,

1. INVITES Member States to implement in its entirety resolution WHA33.27 of May 1980 and to combine their efforts in exploring new methods for prevention and treatment of drug addiction and improving information on this problem;

2. REQUESTS the Director-General:

(1) to seek extrabudgetary resources to permit WHO to strengthen epidemiological surveillance systems in this field;

(2) to continue his collaboration in the spirit of resolution WHA33.27 and report to the next World Health Assembly of the progress achieved in this sector;

(3) to include this item in the agenda for the Thirty-ninth World Health Assembly in 1986.

Fourteenth plenary meeting, 17 May 1984
A37/VR/14

INTERNATIONAL STANDARDS AND UNITS FOR BIOLOGICAL SUBSTANCES

The Thirty-seventh World Health Assembly,

Considering Articles 2(u), 21(d) and (e) and 23 of the Constitution;

Considering resolutions WHA3.8, WHA18.7 and WHA26.32 adopted by the Third World Health Assembly, the Eighteenth World Health Assembly and the Twenty-sixth World Health Assembly respectively, recommending the adoption of certain international standards and units for biological substances;

I

RECOMMENDS

- (1) that Member States of the Organization recognize officially the international standards and international reference preparations and units for biological substances enumerated in the two lists annexed to this resolution,¹ which supersede the lists recommended in resolutions WHA3.8, WHA18.7 and WHA26.32;
- (2) that these standards and units or their equivalents be cited in the relevant national pharmacopoeias;
- (3) that, where applicable, these standards and units or their equivalents be recognized in relevant national regulations;
- (4) that in those countries which do not possess a national pharmacopoeia or national standards, when it is necessary that the potency of the product should be stated on the label, such potency be expressed in international units;

II

Considering also the need to make these international biological standards available to Member States in the most expeditious and convenient manner, as a contribution towards enabling an acceptable level of quality of biological substances used in medicine to be achieved;

Recognizing the value and utility to Member States of these international units, as well as of international units defined for a number of international reference preparations of biological substances, in the national control of biological products;

1. AUTHORIZES the Director-General, where necessary for the use of regulatory agencies of Member States, to make additions to or replacements of these international biological preparations, subject in each case to the satisfactory completion of the technical procedures now established of international collaborative studies and assays and under the advice of the members of the Expert Advisory Panel on Biological Standardization or other experts designated to deal with the standardization of particular biological substances;

2. REQUESTS the Director-General to inform Member States periodically when such international biological preparations are established and their international units have been defined;

3. INVITES the Director-General to inquire periodically of Members regarding the use being made of these international standards and other biological preparations in their countries in the control of biological products.

Fourteenth plenary meeting, 17 May 1984
A37/VR/14

LIST I. BIOLOGICAL STANDARDS

ANTIBIOTICS (held in London)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Amphotericin B	-	0.001064	Ampoules containing approximately 50 mg of amphotericin B (940 IU per mg)	<u>1st Standard</u> 1963
Bacitracin	-	0.01351	Ampoules containing approximately 100 mg of zinc bacitracin (74 IU per mg)	<u>1st Standard</u> 1953 (0.0182 mg) <u>2nd Standard</u> 1964
Chlortetracycline	-	0.001	Ampoules containing approximately 75 mg of chlortetracycline hydrochloride (1000 IU per mg)	<u>1st Standard</u> 1953 (0.001 mg) <u>2nd Standard</u> 1969
Colistin	-	0.00004878	Ampoules containing approximately 75 mg of colistin sulfate (20 500 IU per mg)	<u>1st Standard</u> 1968
Dihydrostreptomycin	-	0.001219	Ampoules containing approximately 200 mg of dihydrostreptomycin sulfate (820 IU per mg)	<u>1st Standard</u> 1953 (0.001316 mg) <u>2nd Standard</u> 1966
Erythromycin	-	0.001087	Ampoules containing approximately 75 mg of erythromycin A base (920 IU per mg)	<u>1st Standard</u> 1957 (0.001053 mg) <u>2nd Standard</u> 1978
Novobiocin	-	0.001031	Ampoules containing approximately 100 mg of novobiocin acid (970 IU per mg)	<u>1st Standard</u> 1965
Nystatin	-	0.0002059	Ampoules containing approximately 100 mg of nystatin (4855 IU per mg)	<u>1st Standard</u> 1963 (0.000333 mg) <u>2nd Standard</u> 1982
Oleandomycin	-	0.001176	Ampoules containing approximately 75 mg of oleandomycin chloroform adduct (850 IU per mg)	<u>1st Standard</u> 1964
Oxytetracycline	-	0.0011364	Ampoules containing approximately 100 mg of oxytetracycline base dihydrate (880 IU per mg)	<u>1st Standard</u> 1955 (0.00111 mg) <u>2nd Standard</u> 1966
Polymyxin B	-	0.000119	Ampoules containing approximately 75 mg of purified polymyxin B sulfate (8403 IU per mg)	<u>1st Standard</u> 1955 (0.000127 mg) <u>2nd Standard</u> 1969
Rolitetetracycline	-	0.001004	Ampoules containing approximately 100 mg of rolitetetracycline (996 IU per mg)	<u>1st Standard</u> 1968
Streptomycin	78 500	-	Ampoules containing 100 mg of streptomycin sulfate	<u>1st Standard</u> 1950 (0.001282 mg) <u>2nd Standard</u> 1958 <u>3rd Standard</u> 1980
Tetracycline	-	0.00101833	Ampoules containing approximately 75 mg of tetracycline hydrochloride (982 IU per mg)	<u>1st Standard</u> 1957 (0.00101 mg) <u>2nd Standard</u> 1970
Vancomycin	-	0.000993	Ampoules containing approximately 50 mg of vancomycin sulfate (1007 IU per mg)	<u>1st Standard</u> 1963

ANTIBIOTICS (held in Weybridge)

Hygromycin B	-	0.0008928	Ampoules containing 40 mg of hygromycin B (1120 IU per mg)	<u>1st Standard</u> 1966
Tylosin	-	0.001	Ampoules containing 40 mg of tylosin base (1000 IU per mg)	<u>1st Standard</u> 1966

ANTIBODIES (held in Copenhagen)

Anti-dysentery serum (Shiga), equine	-	0.05 (of dry material in stock ampoules)	Bottles containing 10 ml of a solution of dried hyperimmune horse serum in saline containing 66% v/v of glycerol (200 IU per ml)	<u>1st Standard</u> 1928
Anti-poliovirus serum (type 1), monkey	10	-	Ampoules containing 107.8 mg of dried hyperimmune monkey serum	<u>1st Standard</u> 1962
Anti-poliovirus serum (type 2), monkey	10	-	Ampoules containing 104.6 mg of dried hyperimmune monkey serum	<u>1st Standard</u> 1962
Anti-poliovirus serum (type 3), monkey	10	-	Ampoules containing 104.8 mg of dried hyperimmune monkey serum	<u>1st Standard</u> 1962
Anti-Q-fever serum, bovine	1 000	0.1017	Ampoules containing 101.7 mg of dried bovine serum (± 12%)	<u>1st Standard</u> 1953
Anti-rabies serum, equine	86.6	1.0	Ampoules containing 86.6 mg of dried hyperimmune horse serum (± 5.3%)	<u>1st Standard</u> 1955
Anti-smallpox serum, human	1 000	-	Ampoules containing 84.3 mg of freeze-dried pooled human serum	<u>1st Standard</u> 1965
Anti-streptolysin O, human	2 160	-	Ampoules containing 46 mg of dried human serum; distributed as a 10 ml solution containing 10 IU per ml	<u>1st Standard</u> 1959

LIST I. BIOLOGICAL STANDARDS (continued)

ANTIBODIES (held in Copenhagen) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Anti-toxoplasma serum, human	2 000	-	Ampoules containing 175.8 mg of freeze-dried pooled human serum	1st Standard 1967 2nd Standard 1980
<u>Clostridium botulinum</u> Type A antitoxin, equine	500	-	Ampoules containing 68.0 mg of dried hyperimmune horse serum	1st Standard 1963
<u>Clostridium botulinum</u> Type B antitoxin, equine	500	-	Ampoules containing 87.0 mg of dried hyperimmune horse serum	1st Standard 1963
<u>Clostridium botulinum</u> Type C antitoxin, equine	1 000	-	Ampoules containing 80.0 mg of dried hyperimmune horse serum	1st Standard 1963
<u>Clostridium botulinum</u> Type D antitoxin, equine	1 000	-	Ampoules containing 12.1 mg of dried hyperimmune horse serum	1st Standard 1963
<u>Clostridium botulinum</u> Type E antitoxin, equine	1 000	-	Ampoules containing 69.1 mg of dried hyperimmune horse serum	1st Standard 1963
<u>Clostridium botulinum</u> Type F antitoxin, rabbit	4	-	Ampoules containing 29.32 mg of dried hyperimmune rabbit serum	1st Standard 1965
Diphtheria antitoxin, equine	-	0.0628 (of dry material in stock ampoules)	Ampoules containing approximately 476 mg of dried hyperimmune horse serum; distributed in bottles containing 10 ml of solution of the dried serum containing 66% v/v of glycerol (10 IU per ml)	1st Standard 1934 ¹
Gas-gangrene antitoxin (<u>Clostridium histolyticum</u>), equine	50	0.2	Ampoules containing 10.0 mg of freeze-dried hyperimmune horse serum	1st Standard 1935 (0.3575 mg) 2nd Standard 1951 (0.2 mg) 3rd Standard 1971
Gas-gangrene antitoxin (<u>Clostridium novyi</u>), ² equine	1 100	-	Ampoules containing 91 mg of dried hyperimmune horse serum	1st Standard 1934 (0.2681 mg) 2nd Standard 1952 (0.1135 mg) 3rd Standard 1966
Gas-gangrene antitoxin (<u>Clostridium septicum</u>), equine	500	0.118	Ampoules containing 59 mg of a dried 1:3 dilution of hyperimmune horse serum in phosphate-buffered saline	1st Standard 1934 (0.2377 mg) 2nd Standard 1947 (0.0974 mg) 3rd Standard 1957
Gas-gangrene antitoxin (<u>Clostridium sordellii</u>), equine	-	0.1334 (of dry material in stock ampoules)	Bottles containing 10 ml of a solution of dried hyperimmune horse serum in saline containing 66% v/v of glycerol (20 IU per ml)	1st Standard 1938
Gas-gangrene antitoxin (<u>Clostridium perfringens</u> alpha antitoxin), ³ equine	270	-	Ampoules containing 90.35 mg of dried hyperimmune horse serum	1st Standard 1931 (0.3220 mg) 2nd Standard 1935 (0.2660 mg) 3rd Standard 1943 (0.3477 mg) 4th Standard 1953 (0.1132 mg) 5th Standard 1963
<u>Naja</u> antivenin, equine	300	2.69	Ampoules containing 807 mg of purified, dried, polyvalent (<u>Naja</u> and <u>Hemachatus</u> species) horse serum	1st Standard 1964
Scarlet fever streptococcus antitoxin, equine	10 000	0.049	Ampoules containing 490 mg of dried hyperimmune horse serum	1st Standard 1952
Staphylococcus α antitoxin, equine	220	-	Bottles containing 10 ml of a solution of dried hyperimmune horse serum in phosphate-buffered saline containing 0.01% w/v of thiomersal (20 IU per ml)	1st Standard 1934 (0.5000 mg) 2nd Standard 1938 (0.2376 mg) 3rd Standard 1982
Syphilitic serum, human	49	-	Ampoules containing 177.4 mg of dried human serum	1st Standard 1958
Tetanus antitoxin, equine ⁴	1 400 (1000 Lf- equiva- lents for floccu- lation)	-	Ampoules containing 47 mg of freeze-dried hyperimmune horse serum (1400 IU per ampoule)	1st Standard 1928 (0.3094 mg) 2nd Standard 1969

ANTIBODIES (held in Weybridge)

Anti-Brucella abortus serum, bovine	1 000 (aggl.) 1 000 (CF)	-	Ampoules containing 95.52 mg of freeze-dried bovine serum (1000 IU of agglutinating activity and 1000 IU complement-fixing activity per ampoule)	1st Standard 1952 (0.091 mg) 2nd Standard 1967
Anti-canine distemper serum	1 000	-	Ampoules containing 89.7 mg of freeze-dried hyperimmune horse serum	1st Standard 1967
Anti-canine-hepatitis serum	1 000	-	Ampoules containing 79.6 mg of freeze-dried hyperimmune horse serum	1st Standard 1967

¹ The history of the standard is not entirely clear. Apparently (Bull. Health Organ. L.O.N., 1935) a standard existed since 1922 but there is no information on the way in which it was defined. The present standard was prepared in Copenhagen in 1934 and is the first one with a clearly defined unitage.

² Valid equivalent for the synonym Clostridium oedematis, which the International Committee on Systematic Bacteriology has now declared invalid (Int. J. System. Bacteriol., 1980, 30, 225).

³ Valid equivalent for (perfringens) (Clostridium welchii type A antitoxin) - see previous footnote.

⁴ This serum is also suitable for flocculation. The in vivo to in vitro ratio is 1.4; therefore for practical purposes it may be assumed that the ampoule contains 1000 Lf-equivalents.

LIST I. BIOLOGICAL STANDARDS (continued)

ANTIBODIES (held in Weybridge) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Anti-Salmonella pullorum serum (Standard Form S)	1 000	-	Ampoules containing 83.8 mg of freeze-dried goat serum prepared against a standard English field strain (strain 11)	1st Standard 1973
Anti-Salmonella pullorum serum (Variant Form V)	1 000	-	Ampoules containing 81.4 mg of freeze-dried goat serum prepared against an American variant strain	1st Standard 1973
Anti-swine-fever serum	1 000	-	Ampoules containing 889.5 mg of freeze-dried pig serum	1st Standard 1963
Clostridium perfringens beta ¹ antitoxin	5 000	-	Ampoules containing 68.5 mg of dried hyperimmune horse serum	1st Standard 1954
Clostridium perfringens epsilon ¹ antitoxin	1 000	-	Ampoules containing 65.7 mg of dried hyperimmune horse serum	1st Standard 1954
Swine erysipelas serum (anti-N)	628	-	Ampoules containing 87.9 mg of dried hyperimmune horse serum	1st Standard 1954

ANTIGENS (held in Copenhagen)

Diphtheria toxoid, adsorbed	132	-	Ampoules containing 75 mg of diphtheria toxoid adsorbed on aluminium hydroxide (1.0 mg Al/ampoule) plus polygeline (26 mg per ampoule)	1st Standard 1955 (0.75) 2nd Standard 1978
Diphtheria toxoid, plain	200	-	Ampoules containing 21 mg of formalin-treated diphtheria toxoid, freeze-dried	1st Standard 1951 (0.50 mg) 2nd Standard 1975
Diphtheria (Schick) test toxin	900	-	Ampoules containing 0.005 mg of purified diphtheria toxin plus 1 mg of bovine albumin and 2.74 mg of phosphate buffer salts	1st Standard 1954
Pertussis vaccine	46	-	Ampoules containing 25 mg of freeze-dried vaccine	1st Standard 1957 2nd Standard 1980
Tetanus toxoid, adsorbed	340	-	Ampoules containing 27.5 mg of a dried mixture of tetanus toxoid (90Lf/ampoule) adsorbed to aluminium hydroxide (1 mgAl ³⁺ /ampoule) and 22.5 mg of haemacel	1st Standard 1965 2nd Standard 1981
Tetanus toxoid, plain	833	0.03	Ampoules containing 25 mg of alcohol-purified tetanus toxoid plain plus glycine	1st Standard 1951
Tuberculin, old	-	-	Ampoules containing 2 ml of old tuberculin (90 000 IU per ml)	1st Standard 1931 (0.0100 µl) 2nd Standard 1935 (0.0100 µl) 3rd Standard 1965
Tuberculin, purified protein derivative (PPD), avian	500 000	0.0000726	Ampoules containing 10 mg of PPD plus 26.3 mg of salts	1st Standard 1954
Tuberculin, purified protein derivative (PPD), mammalian	500 000	0.000028	Ampoules containing 10 mg of PPD prepared from a human strain plus 4 mg of salts	1st Standard 1951

ANTIGENS (held in Weybridge)

Newcastle disease vaccine (inactivated)	525	-	Ampoules containing 525 mg of freeze-dried vaccine derived from formaldehyde-treated allantoic fluid of eggs infected with strains of Newcastle disease virus, adsorbed on aluminium hydroxide	1st Standard 1963
Swine erysipelas vaccine	1 000	-	Ampoules containing 499 mg of dried vaccine derived from formaldehyde-treated <i>Erysipelothrix rhusiopathiae</i> type B, adsorbed on aluminium hydroxide	1st Standard 1959

BLOOD PRODUCTS AND RELATED SUBSTANCES (held in London)

Blood coagulation factor VIII, C, concentrate, human	3.9	-	Ampoules containing 15 mg of a freeze-dried concentrate of human blood coagulation factor VIII	1st Standard 1970 2nd Standard 1976 1.1 IU/ampoule 3rd Standard 1982
Blood coagulation factor IX, human	5.62	-	Ampoules containing 5.92 mg of a freeze-dried concentrate of human blood coagulation factor IX	1st Standard 1976
Heparin, porcine	1 370	-	Ampoules containing approximately 8.8 mg of sodium heparin from porcine intestinal mucosa, freeze-dried	1st Standard 1942 (0.0077 mg) 2nd Standard 1958 (0.0077 mg) 3rd Standard 1973

¹ Valid equivalents for synonym *Cl. welchii* (*perfringens*) types B and D antitoxins, which the International Committee on Systematic Bacteriology has now declared invalid (*Int. J. System. Bacteriol.*, 1980, 30, 225).

LIST I. BIOLOGICAL STANDARDS (continued)

BLOOD PRODUCTS AND RELATED SUBSTANCES (held in London) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Streptokinase and streptodornase	3 100	-	Ampoules containing approximately 1 mg of extract with 5 mg of lactose, freeze-dried	<u>1st Standard</u> 1964
Streptokinase	2 400	-		
Streptodornase		-		
Thrombin, human	100	-	Ampoules containing approximately 3.5 mg of partially purified freeze-dried human thrombin and 5 mg sucrose	<u>1st Standard</u> 1975

BLOOD PRODUCTS AND RELATED SUBSTANCES (held in Copenhagen)

Alphafetoprotein, human	100 000	-	Ampoules containing 139.91 mg of freeze-dried cord serum	<u>1st Standard</u> 1975
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BLOOD PRODUCTS AND RELATED SUBSTANCES (held in Amsterdam)

Anti-Rho (anti-D) incomplete blood-typing serum, human	32	-	Ampoules containing approximately 30 mg of dried material derived from 0.5 ml of pooled human serum	<u>1st Standard</u> 1966
FITC-conjugated sheep anti-human Ig	100	-	Ampoules containing 5.94 mg of sheep anti-human Ig, freeze-dried	<u>1st Standard</u> 1976
FITC-conjugated sheep anti-human IgM	100	-	Ampoules containing 4.47 mg of freeze-dried sheep anti-human IgM	<u>1st Standard</u> 1977
FITC-conjugated sheep anti-human IgG (anti-γ chain)	100	-	Ampoules containing 9.23 mg of freeze-dried sheep anti-human IgG, anti-γ chain	<u>1st Standard</u> 1981
Anti-A blood-typing serum, human	470	-	Ampoules containing approximately 99.9 mg of dried material derived from 1 ml of human serum	<u>1st Standard</u> 1950 <u>2nd Standard</u> 1981
Anti-B blood-typing serum, human	860	-	Ampoules containing approximately 83.0 mg of dried material derived from 1 ml of human serum	<u>1st Standard</u> 1950 <u>2nd Standard</u> 1980 <u>3rd Standard</u> 1981
Anti-A,B blood-typing serum, human	400 anti-A 240 anti-B	-	Ampoules containing approximately 93.3 mg of dried material derived from 1 ml of human serum	<u>1st Standard</u> 1981
Anti-C incomplete, blood-typing serum, human	64	-	Ampoules containing 39.0 mg of freeze-dried human anti-C blood-typing serum diluted in AB serum	<u>1st Standard</u> 1976

ENDOCRINOLOGICAL AND RELATED SUBSTANCES (held in London)

Arginine vasopressin, for bioassay	8.2	-	Ampoules containing approximately 20 µg of freeze-dried synthetic arginine vasopressin peptide acetate with 5 mg human albumin and citric acid	<u>1st Standard</u> 1978
Chorionic gonadotrophin, human, for bioassay	5 300	-	Ampoules containing approximately 2 mg of freeze-dried extract of chorionic gonadotrophin from human urine of pregnancy, with 5 mg lactose	<u>1st Standard</u> 1939 (0.1 mg) <u>2nd Standard</u> 1963
Corticotrophin (ACTH), porcine, for bioassay	5.0	-	Ampoules containing approximately 50 µg of freeze-dried corticotrophin from the anterior lobes of porcine pituitary glands, with 5 mg lactose	<u>1st Standard</u> 1950 (1.00 mg) <u>2nd Standard</u> 1955 (0.88 mg) <u>3rd Standard</u> 1962
Desmopressin	27	-	Ampoules containing approximately 27 µg of 1-(3-mercaptopropionic acid)-8-D-argininevasopressin, ¹ with 5 mg of human albumin and citric acid	<u>1st Standard</u> 1980
Glucagon, porcine, for bioassay	1.49	-	Ampoules containing approximately 1.5 mg of freeze-dried porcine glucagon, with 5 mg lactose and sodium chloride	<u>1st Standard</u> 1973
Growth hormone, bovine, for bioassay	-	1.0	Ampoules containing approximately 30 mg of dried growth hormone from bovine pituitary	<u>1st Standard</u> 1955
Growth hormone, human, for bioassay	4.4	-	Ampoules containing 1.75 mg of freeze-dried purified human growth hormone (28.1 mg of total solid material)	<u>1st Standard</u> 1982
Insulin, bovine and porcine, for bioassay	-	0.04167	Ampoules containing approximately 110 mg of insulin, cocrystallized from a mixture of 52% bovine and 48% porcine insulin (24.0 IU per mg)	<u>1st Standard</u> 1925 (0.12500 mg) <u>2nd Standard</u> 1935 (0.04550 mg) <u>3rd Standard</u> 1952 (0.04082 mg) <u>4th Standard</u> 1958
Kininogenase, porcine, pancreatic	22.5	-	Ampoules containing approximately 20 µg of freeze-dried porcine pancreatic kininogenase with 5 mg human albumin	<u>1st Standard</u> 1982
Lysine vasopressin	7.7	-	Ampoules containing approximately 23.4 µg of freeze-dried synthetic lysine vasopressin, with 5 mg albumin and citric acid	<u>1st Standard</u> 1978

¹ Formerly known as 1-deamino-8-D-argininevasopressin.

LIST I. BIOLOGICAL STANDARDS (continued)

Annex

ENDOCRINOLOGICAL AND RELATED SUBSTANCES (held in London) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Oxytocin, for bioassay	12.5	-	Ampoules containing approximately 21.4 µg of dried synthetic oxytocin peptide with 5 mg human albumin and citric acid	4th Standard 1978 ¹
Prolactin, ovine, for bioassay	-	0.04545	Ampoules containing approximately 10 mg of freeze-dried purified prolactin from sheep pituitary glands (22.0 IU/mg)	1st Standard 1939 (0.1 mg) 2nd Standard 1962
Serum gonadotrophin, equine, for bioassay	1 600	-	Ampoules containing approximately 0.8 mg of freeze-dried extract from the serum of pregnant mares, with 5 mg lactose	1st Standard 1939 (0.25 mg) 2nd Standard 1966
Thyrotrophin (pituitary TSH), bovine, for bioassay	-	13.5	Ampoules containing 10 tablets of approximately 20 mg of a blend of 1 part of purified thyrotrophin from bovine pituitary glands and 19 parts of lactose	1st Standard 1954
Urinary FSH and LH (ICSH), human for bioassay	-	-	Ampoules containing approximately 1 mg of freeze-dried extract of urine from post-menopausal women, with 5 mg of lactose	1st Standard 1974
FSH activity	54.0 (FSH)	-		
LH (ICSH) activity	46.0 (LH)	-		

MISCELLANEOUS (held in London)

Digitalis	-	76.0	Ampoules containing approximately 2500 mg of dry powdered leaves of <i>Digitalis purpurea</i> (0.01316 IU per mg)	1st Standard 1926 (100.0 mg) 2nd Standard 1936 (80.0 mg) 3rd Standard 1949
Hyaluronidase, bovine	Approx. 200 IU per tablet	-	Ampoules containing 10 tablets of approximately 20 mg of dried bovine testicular hyaluronidase diluted with lactose (10 IU/mg)	1st Standard 1955
Vitamin D	-	1.0	Bottles containing approximately 6 g of a solution of vitamin D ₃ ² in vegetable oil (1000 IU per g)	1st Standard 1931 (0.1 mg) / Irradiated ergosterol/ 2nd Standard 1949

¹ The first standard for oxytocin and vasopressin, for bioassay, was established in 1925, the second in 1942 and the third in 1957. This combined standard was discontinued in 1978, when a separate standard for oxytocin, for bioassay, was established. Since the unitage of this standard was based on the oxytocin unitage of the combined standard, it was called the 4th Standard.

² The International Nonproprietary Name of vitamin D₃ is colecalciferol.

Annex

LIST 11. BIOLOGICAL REFERENCE PREPARATIONS

ANTIBIOTICS (held in London)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Bleomycin complex A ₂ /B ₂	8 910	-	Ampoules containing 5 mg of bleomycin complex	<u>1st Reference Preparation</u> 1980
Candididin	-	0.0004766	Ampoules containing approximately 50 mg of candididin (2098 IU per mg)	<u>1st Reference Preparation</u> 1978
Capreomycin	-	0.001087	Ampoules containing approximately 80 mg of capreomycin sulfate (920 IU per mg)	<u>1st Reference Preparation</u> 1967
Cefalotin	-	0.0010661	Ampoules containing approximately 50 mg of sodium cefalotin (938 IU per mg)	<u>1st Reference Preparation</u> 1965
Clindamycin	-	0.0011947	Ampoules containing approximately 50 mg of clindamycin hydrochloride (837 IU per mg)	<u>1st Reference Preparation</u> 1971
Colistin methane sulfonate ¹	-	0.00007874	Ampoules containing approximately 75 mg of colistin methane sulfonate (12 700 IU per mg)	<u>1st Reference Preparation</u> 1966
Demethylchlortetracycline ²	-	0.001	Ampoules containing approximately 80 mg of demethylchlortetracycline hydrochloride (1000 IU per mg)	<u>1st Reference Preparation</u> 1962
Doxycycline	-	0.0011494	Ampoules containing approximately 75 mg of doxycycline hydrochloride hemi-ethanolate hemihydrate (870 IU per mg)	<u>1st Reference Preparation</u> 1973
Gentamycin ³	-	0.00156	Ampoules containing approximately 50 mg of gentamycin sulfate (641 mg IU per mg)	<u>1st Reference Preparation</u> 1968
Gramicidin	-	0.001	Ampoules containing approximately 55 mg of gramicidin (1000 IU per mg)	<u>1st Reference Preparation</u> 1966
Kanamycin	-	0.001232	Ampoules containing approximately 50 mg of kanamycin sulfate (812 IU per mg)	<u>1st Reference Preparation</u> 1959
Lincomycin	-	0.0011351	Ampoules containing approximately 50 mg of lincomycin hydrochloride (881 IU per mg)	<u>1st Reference Preparation</u> 1965
Lymecycline	-	0.0010548	Ampoules containing approximately 100 mg of lymecycline (948 IU per mg)	<u>1st Reference Preparation</u> 1968 (0.0010548 mg) <u>2nd Reference Preparation</u> 1971
Methacycline ⁴	-	0.001082	Ampoules containing approximately 50 mg of methacycline hydrochloride (924 IU per mg)	<u>1st Reference Preparation</u> 1969
Minocycline	-	0.0011587	Ampoules containing approximately 75 mg of minocycline hydrochloride (863 IU per mg)	<u>1st Reference Preparation</u> 1975
Neomycin	-	0.0012903	Ampoules containing approximately 50 mg of neomycin sulfate (775 IU per mg)	<u>1st Reference Preparation</u> 1958 (0.00147 mg) <u>2nd Reference Preparation</u> 1974
Neomycin B ⁵	16 756	0.001492	Ampoules containing approximately 25 mg of neomycin B sulfate (670 IU per mg)	<u>1st Reference Preparation</u> 1970
Paromomycin	-	0.001333	Ampoules containing approximately 75 mg of paromomycin sulfate (750 IU per mg)	<u>1st Reference Preparation</u> 1965
Procaine benzylpenicillin in oil with aluminium monostearate	-	-	Bottles containing approximately 10 ml of procaine benzylpenicillin in oil with aluminium monostearate, for injection	<u>1st Reference Preparation</u> 1962 <u>2nd Reference Preparation</u> 1965
Rifamycin SV ⁶	-	0.001127	Ampoules containing approximately 100 mg of sodium rifamycin SV (887 IU per mg)	<u>1st Reference Preparation</u> 1967
Spectinomycin	-	0.00149	Ampoules containing approximately 75 mg of spectinomycin dihydrochloride pentahydrate (671 IU per mg)	<u>1st Reference Preparation</u> 1975
Spiramycin	-	0.0003125	Ampoules containing approximately 50 mg of spiramycin base (3200 IU per mg)	<u>1st Reference Preparation</u> 1962

¹ In some countries this antibiotic is known as "colistin sulphomethate" or "colistimethate".² The International Nonproprietary Name of this substance has been changed to demeclocycline.³ The International Nonproprietary Name of this substance has been changed to gentamicin.⁴ The International Nonproprietary Name of this substance is metacycline.⁵ The International Nonproprietary Name of this substance is framycetin.⁶ The International Nonproprietary Name of this substance is rifamycin.

LIST 11. BIOLOGICAL REFERENCE PREPARATIONS (continued)

Amex

ANTIBIOTICS (held in London) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Tobramycin	-	0.0010142	Ampoules containing approximately 80 mg of tobramycin base (986 IU per mg)	<u>1st Reference Preparation</u> 1980
Triacetyloleandomycin ¹	-	0.0012	Ampoules containing approximately 100 mg of triacetyloleandomycin (833 IU per mg)	<u>1st Reference Preparation</u> 1962
Viomycin	-	0.0012285	Ampoules containing approximately 100 mg of viomycin sulfate (814 IU per mg)	<u>1st Reference Preparation</u> 1959 (0.00137 mg) <u>2nd Reference Preparation</u> 1969

ANTIBIOTICS (held in Weybridge)

Nisin	-	0.001	Ampoules containing 85 mg of nisin (1000 IU per mg)	<u>1st Reference Preparation</u> 1969
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ANTIBODIES (held in Copenhagen)

Anti-measles serum, human	10	-	Ampoules containing 93.8 mg of dried human serum	<u>1st Reference Preparation</u> 1964
Anti-rubella serum, human	1 000	-	Ampoules containing 145.95 mg of freeze- dried human immunoglobulin	<u>1st Reference Preparation</u> 1966 ² <u>2nd Reference Preparation</u> 1970
Anti-staphylococcal P-V leucocidin serum, equine	150	-	Ampoules containing 53.5 mg of freeze- dried horse serum	<u>1st Reference Preparation</u> 1965
Anti-typhoid serum, equine	-	-	Ampoules containing 5 ml of dried hyperimmune horse serum	<u>1st Reference Preparation</u> 1952
Anti-yellow-fever serum, monkey	143	0.5	Ampoules containing approximately 71.5 mg of dried monkey serum	<u>1st Reference Preparation</u> 1962
Diphtheria antitoxin, equine, for flocculation test	1 800 Lf- equi- valents	-	Ampoules containing 120.17 mg of freeze- dried purified hyperimmune horse serum	<u>1st Reference Preparation</u> 1935 <u>2nd Reference Preparation</u> 1938 <u>3rd Reference Preparation</u> 1945 <u>4th Reference Preparation</u> 1956 <u>5th Reference Preparation</u> 1971
Rheumatoid arthritis serum, human	100	-	Ampoules containing 17.1 mg of freeze- dried pooled human serum	<u>1st Reference Preparation</u> 1970

ANTIBODIES (held in Weybridge)

Anti- <u>Mycoplasma gallisepticum</u> serum	1 000	-	Ampoules containing 55.6 mg of freeze- dried chicken serum	<u>1st Reference Preparation</u> 1969
Anti-Newcastle-disease serum	320	-	Ampoules containing 55.5 mg of freeze- dried chicken serum	<u>1st Reference Preparation</u> 1966

ANTIBODIES (held in London)

Anti-thyroglobulin serum, human	1 000	-	Ampoules containing approximately 44.3 mg of freeze-dried human auto- immune serum	<u>1st Reference Preparation</u> 1978
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ANTIGENS (held in Copenhagen)

Rabies vaccine	10	-	Ampoules containing approximately 49.45 mg of freeze-dried rabies vaccine prepared in human diploid cells and inactivated with propiolactone	<u>1st Reference Preparation</u> 1960 ³ <u>2nd Reference Preparation</u> 1965 ³ <u>3rd Reference Preparation</u> 1978
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ANTIGENS (held in Weybridge)

Anthrax spore vaccine	1.0	-	Ampoules containing a freeze-dried spore suspension of <u>Bacillus anthracis</u> strain 34 F2 (approximately 10 ⁸ culturable spores per ampoule)	<u>1st Reference Preparation</u> 1978
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BLOOD PRODUCTS AND RELATED SUBSTANCES (held in Copenhagen)

Pregnancy-specific β_1 glycoprotein	0.075	-	Ampoules containing 45.16 mg of freeze- dried purified serum from pregnant women	<u>1st Reference Preparation</u> 1982
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BLOOD PRODUCTS AND RELATED SUBSTANCES (held in London)

Anctrod	55	-	Ampoules containing 16.90 mg of purified anctrod in lactose and human serum albumin	<u>1st Reference Preparation</u> 1976
Anti-D immunoglobulin, human	300	-	Ampoules containing 14.76 mg of human immunoglobulin (60 μ g of anti-D immunoglobulin)	<u>1st Reference Preparation</u> 1976

¹ The International Nonproprietary Name of this substance has been changed to troleandomycin.

² No units were assigned to this preparation.

³ No units were assigned to these preparations.

Annex

LIST 11. BIOLOGICAL REFERENCE PREPARATIONS (continued)

BLOOD PRODUCTS AND RELATED SUBSTANCES (held in London) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Antithrombin III, plasma	0.9	-	Ampoules containing the freeze-dried residue of 1 ml human plasma	<u>1st Reference Preparation</u> 1978
Carcinoembryonic antigen (CEA), human	100	-	Ampoules containing 2.36 mg of freeze-dried carcinoembryonic antigen	<u>1st Reference Preparation</u> 1975
Factor VIII-related activities in plasma	0.73 VIII:C 0.87 VIII:RAs 0.80 VIII:R:RCof 0.95 VIII:C:Ag	-	Ampoules containing the freeze-dried residue of 1 ml human plasma	<u>1st Reference Preparation</u> 1982
Human serum immunoglobulin E (IgE)	5 (00)	-	Ampoules containing approximately 75 mg of the freeze-dried residue from citrated human plasma	<u>1st Reference Preparation</u> 1973 <u>2nd Reference Preparation</u> 1980
Human serum immunoglobulins G, A, and M (IgG, IgA, and IgM)	100 (of each)	-	Ampoules containing approximately 81 mg of the freeze-dried residue from diluted pooled human serum (100 IU IgG, 100 IU IgA, and 100 IU IgM per ampoule)	<u>1st Reference Preparation</u> 1970
Plasmin, human	10	-	Ampoules containing approximately 1.0 ml of a solution of partially purified plasmin in 50% glycerol	<u>1st Reference Preparation</u> 1976 (8.0 IU) <u>2nd Reference Preparation</u> 1982
Thromboplastin, bovine, combined	-	-	Ampoules containing freeze-dried bovine thromboplastin with bovine plasma, adsorbed with BaSO ₄ , CCl ₂ and cephalin. International sensitivity Index = 1.0	<u>1st Reference Preparation</u> 1978
Thromboplastin, human combined	-	-	Ampoules containing a freeze-dried suspension of human brain mixed with bovine factor V, bovine fibrinogen and calcium chloride. International sensitivity Index = 1.0	<u>1st Reference Preparation</u> 1976
Thromboplastin, rabbit, plain	-	-	Ampoules containing freeze-dried rabbit brain suspension. International sensitivity Index = 1.4	<u>1st Reference Preparation</u> 1978
Urokinase, human	4 800	-	Ampoules containing approximately 1.4 mg of partially purified freeze-dried urokinase from human urine, with 5 mg lactose	<u>1st Reference Preparation</u> 1968

BLOOD PRODUCTS AND RELATED SUBSTANCES (held in Amsterdam)

Anti-nuclear-factor serum (homogeneous), ¹ human	100	0.186	Ampoules containing approximately 19 mg of the freeze-dried residue of 0.2 ml of pooled human serum (18.6 mg \pm 5.8%)	<u>1st Reference Preparation</u> 1970
Hepatitis A immunoglobulin	100	-	Ampoules containing anti-hepatitis A immunoglobulin (fractionated plasma, freeze-dried)	<u>1st Reference Preparation</u> 1981
Hepatitis B immunoglobulin	50	-	Ampoules containing anti-hepatitis B immunoglobulin (fractionated plasma, freeze-dried)	<u>1st Reference Preparation</u> 1977
Human serum complement components C1q, C4, C5, factor B and whole functional complement CH50	100 (of each)	-	Ampoules containing 110.7 mg of freeze-dried residue of 1.3 ml of human serum	<u>1st Reference Preparation</u> 1980
Human serum proteins, for immunoassay: albumin, alpha-1-macroglobulin, alpha-2-macroglobulin, ceruloplasmin, complement C3, transferrin	100 (of each)	-	Ampoules containing 111.4 mg of dried material derived from 1.3 ml of human serum	<u>1st Reference Preparation</u> 1977

ENDOCRINOLOGICAL AND RELATED SUBSTANCES (held in London)

Calcitonin, human, for bioassay	1.0	-	Ampoules containing approximately 8.5 µg of freeze-dried synthetic human calcitonin peptide with 10 mg mannitol	<u>1st Reference Preparation</u> 1974
Calcitonin, porcine, for bioassay	1.0	-	Ampoules containing approximately 10 µg of freeze-dried purified porcine calcitonin, with 5 mg mannitol	<u>1st Reference Preparation</u> 1974
Calcitonin, salmon, for bioassay	80	-	Ampoules containing approximately 20 µg of freeze-dried purified synthetic salmon calcitonin, with 2 mg mannitol	<u>1st Reference Preparation</u> 1974

¹ Serum from the same batch of material as this international reference preparation is available from the Director, National Institute for Biological Standards and Control, Hertsford, London NW3 6RB, England.

LIST II. BIOLOGICAL REFERENCE PREPARATIONS (continued)

Annex

ENDOCRINOLOGICAL AND RELATED SUBSTANCES (held in London) (continued)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Chorionic gonadotrophin, human, for immunoassay	650	-	Ampoules containing approximately 70 µg of freeze-dried highly purified human chorionic gonadotrophin, with 5 mg human albumin	<u>1st Reference Preparation</u> 1975
Chorionic gonadotrophin, alpha subunit, human, for immunoassay	70	-	Ampoules containing approximately 70 µg of freeze-dried highly purified chorionic gonadotrophin, alpha subunit, with 5 mg human albumin	<u>1st Reference Preparation</u> 1975
Chorionic gonadotrophin, beta subunit, human, for immunoassay	70	-	Ampoules containing approximately 70 µg of freeze-dried highly purified chorionic gonadotrophin, beta subunit, with 5 mg human albumin	<u>1st Reference Preparation</u> 1975
Erythropoietin, human, urinary, for bioassay	10.0	-	Ampoules containing approximately 2 mg of freeze-dried extract of human urine, with 3 mg sodium chloride	<u>1st Reference Preparation</u> 1965 (1.45 mg) <u>2nd Reference Preparation</u> 1970
Glucagon, porcine, for immunoassay	1.49	-	Ampoules containing approximately 1.5 mg of freeze-dried porcine glucagon, with 5 mg lactose and sodium chloride	<u>1st Reference Preparation</u> 1974
Gonadorelin (gonadotrophin-releasing hormone) for bioassay	31	-	Ampoules containing the freeze-dried residue of a solution containing approximately 50 µg of gonadorelin acetate, 2.5 mg lactose, 0.5 mg human plasma albumin	<u>1st Reference Preparation</u> 1980
Growth hormone, human (HGH), for immunoassay	0.350	-	Ampoules containing approximately 175 µg of freeze-dried purified human growth hormone, with 5 mg sucrose and buffer salts	<u>1st Reference Preparation</u> 1968
Insulin, human for immunoassay	3.0	-	Ampoules containing approximately 130 µg of freeze-dried crystallized human insulin, with 5 mg sucrose	<u>1st Reference Preparation</u> 1974
Parathyroid hormone, bovine, for bioassay	200	-	Ampoules containing approximately 0.6 mg of freeze-dried trichloroacetic acid extract of bovine parathyroids, with 5 mg lactose	<u>1st Reference Preparation</u> 1974
Parathyroid hormone, human, for immunoassay	0.1	-	Ampoules containing approximately 50 ng freeze-dried purified hormone, with 250 µg human serum albumin, and 1.25 mg lactose	<u>1st Reference Preparation</u> 1981
Parathyroid hormone, bovine, for immunoassay	2.0	-	Ampoules containing approximately 1 µg of freeze-dried purified isohormone 1 from bovine parathyroids, with 200 µg human albumin and 1 mg lactose	<u>1st Reference Preparation</u> 1974
Pituitary FSH and LH (ICSH), human, for bioassay	10.0 (FSH) 25.0 (LH)	-	Ampoules containing approximately 500 µg of freeze-dried extract of human pituitaries, with 1.25 mg lactose	<u>1st Reference Preparation</u> 1974 <u>2nd Reference Preparation</u> 1980
FSH activity		-		
LH (ICSH) activity		-		
Pituitary LH (ICSH), human, for immunoassay	77	-	Ampoules containing approximately 11.6 µg of freeze-dried extract of luteinizing hormone from human pituitaries, with 1 mg of human albumin, 5 mg lactose, and 1 mg sodium chloride	<u>1st Reference Preparation</u> 1974
Placental lactogen, human, for immunoassay	0.000850	-	Ampoules containing approximately 850 µg of freeze-dried purified placental lactogen, with 5 mg mannitol	<u>1st Reference Preparation</u> 1977
Prolactin, human, for immunoassay	0.650	-	Ampoules containing approximately 20 µg of freeze-dried highly purified human pituitary prolactin, with 1 mg human albumin and 5 mg lactose	<u>1st Reference Preparation</u> 1978
Renin, human, for bioassay	0.1	-	Ampoules containing approximately 0.27 mg of freeze-dried purified extract of renin from human kidneys, with 5 mg of lactose and buffer salts	<u>1st Reference Preparation</u> 1974
Tetracosactide, for bioassay	490	-	Ampoules containing approximately 490 µg synthetic tetracosactide with 20 mg mannitol	<u>1st Reference Preparation</u> 1981
Thyroid stimulating hormone (pituitary TSH), human, for immunoassay	0.150	-	Ampoules containing approximately 46 µg of freeze-dried extract of thyroid stimulating hormone from human pituitaries, with 1 mg human albumin and 5 mg lactose	<u>1st Reference Preparation</u> 1974

Annex

LIST II. BIOLOGICAL REFERENCE PREPARATIONS (continued)

MISCELLANEOUS (held in London)

Preparation	IU per ampoule	mg/IU (if relevant)	Form in which available	Years of establishment (in brackets, weight of previous standard containing one IU)
Interferon, human leukocyte	5 000	-	Ampoules of freeze-dried human leukocyte interferon	<u>1st Reference Preparation</u> 1976
Interferon, chick	80	-	Ampoules of freeze-dried chick interferon	<u>1st Reference Preparation</u> 1976

MISCELLANEOUS (held in NID, Bethesda)

Interferon, human fibroblast	10 000	-	Ampoules of freeze-dried human fibroblast interferon	<u>1st Reference Preparation</u> 1976
Interferon, mouse	12 000	-	Ampoules of freeze-dried mouse interferon	<u>1st Reference Preparation</u> 1976
Interferon, rabbit	10 000	-	Ampoules of freeze-dried rabbit interferon	<u>1st Reference Preparation</u> 1976

INFANT AND YOUNG CHILD NUTRITION

The Thirty-seventh World Health Assembly,

Recalling resolutions WHA27.43, WHA31.47, WHA33.32, WHA34.22, WHA35.26, which dealt with infant and young child feeding;

Recognizing that the implementation of the International Code of Marketing of Breast-milk Substitutes is one of the important actions required in order to protect healthy infant and young child feeding;

Recalling the discussion on infant and young child feeding at the Thirty-sixth World Health Assembly, which concluded that it was premature to revise the International Code at that time;

Having considered the Director-General's report,¹ and noting with interest its contents;

Aware that many products unsuitable for infant feeding are being promoted for this purpose in many parts of the world, and that some infant foods are being promoted for use at too early an age, which can be detrimental to infant and young child health;

1. ENDORSES the Director-General's report;
2. URGES continued action by Member States, WHO, nongovernmental organizations and all other interested parties to put into effect measures to improve infant and young child feeding, with particular emphasis on the use of foods of local origin;
3. REQUESTS the Director-General:
 - (1) to continue and intensify collaboration with Member States in their efforts to implement and monitor the International Code of Marketing of Breast-milk Substitutes as an important measure at the national level;
 - (2) to support Member States in examining the promotion and use of foods unsuitable for infant and young child feeding, and the promotion of the appropriate use of infant foods;
 - (3) to report to the Thirty-ninth World Health Assembly on the progress in implementing this resolution, together with recommendations for any other measures needed to further improve sound infant and young child feeding practices.

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¹ Document A37 6.

THE ROLE OF UNIVERSITIES IN THE STRATEGIES FOR HEALTH FOR ALL

The Thirty-seventh World Health Assembly,

Appreciating the outcome of the Technical Discussions held at the Thirty-seventh World Health Assembly on "The role of universities in the strategies for health for all";

Mindful of the important role assigned to universities and other higher learning institutions including colleges for post-graduate medical training in the Global Strategy for Health for All by the Year 2000 and of the significant contribution that the fulfilment of such a role could make to human development and social justice;

Aware of the prestige that universities carry and the influence they have in developing the minds of young people and in preparing them for their role in society as well as in forming public opinion;

Recalling the functions of universities in providing education and training in the fields of health and in a wide variety of social, economic and technical disciplines having a bearing on health, as well as their outstanding contributions to research in these areas;

Keeping in mind the growing involvement of universities throughout the world in grappling with social challenges and in providing services to communities in which they are situated;

Convinced that there is an increased need for collaboration between ministries and other bodies concerned, and universities in order to deal adequately with health and related socioeconomic problems;

Appreciating that ministries and other bodies concerned, and universities are becoming increasingly aware of the vast untapped resources in the universities that could be mobilized in furtherance of health and socioeconomic development;

1. URGES Member States

(1) to encourage universities and other higher learning institutions to include the social and technical concepts of health for all in the education and training of all categories of students and post-graduates and to acquaint the general public with these concepts;

(2) to support universities in orienting the education and training of workers in the health and related fields towards the attainment of health for all;

(3) to involve appropriate faculties in universities, wherever applicable, in the preparation of policies for health for all and in the formulation and implementation of strategies to give effect to these policies.

2. INVITES universities throughout the world

(1) to ensure that students and post-graduates in all faculties are adequately acquainted with the goal of health for all by the year 2000 and actively support the measures for attaining it;

- (2) to provide the kind of education and training for students and post-graduates in the health and related disciplines that will prepare them technically and attune them socially to meet the health needs of the people they are to serve;
- (3) to conduct biomedical, epidemiological, technological, social, economic and behavioural research required to prepare and carry out strategies for health for all;
- (4) to offer to increase their collaboration with relevant ministries and other bodies for the preparation of policies and formulation, implementation and evaluation of strategies for health for all;
- (5) to place themselves at the disposal of communities to the maximum of their capacity for the promotion of health and provision of health care;
- (6) to participate in creating awareness in the general public of the action people can take to promote their health and the health of the communities in which they live.

3. REQUESTS the Director-General

- (1) to publish a report on the Technical Discussions and ensure its wide distribution among relevant ministries, universities, other institutions of higher education, and other interested parties;
- (2) to ensure in all appropriate fora WHO's advocacy of the proper role of universities in the strategies for health for all and of the related collaboration required between ministries and other bodies concerned, and universities;
- (3) to provide relevant ministries, other bodies and universities with information that will facilitate the assumption by universities of their role in strategies for health for all;
- (4) to support relevant ministries and other bodies, on request, in increasing the involvement of universities in national health development efforts;
- (5) to collect and disseminate information on the involvement of universities in the strategies for health for all and on joint endeavours of ministries and other bodies concerned, and universities to this end;
- (6) to establish the necessary mechanisms at Headquarters and regional levels to ensure that all appropriate actions are taken, coordinated, monitored and evaluated;
- (7) to carry out the above within available resources, and to report on developments in his biennial reports to the Health Assembly.

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ACTION PROGRAMME ON ESSENTIAL DRUGS AND VACCINES

The Thirty-seventh World Health Assembly,

Recalling previous resolutions of the Health Assembly on this matter, and in particular resolution WHA35.27, in which the main lines of the Action Programme on Essential Drugs for the coming years and the plan of action for 1982 and 1983 were endorsed, subject to the Health Assembly's deliberations;

Having reviewed the Executive Board's report on the Action Programme on Essential Drugs and Vaccines;

Satisfied that the Programme is making progress along the lines endorsed by the Thirty-fifth World Health Assembly;

Noting with satisfaction that Member States, development agencies, the pharmaceutical industry and a number of other partners are increasingly responding to the challenge of the Programme;

Welcoming in particular the close collaboration between WHO and the United Nations Children's Fund in carrying out the Programme;

Recognizing at the same time that a number of major issues remain to be resolved;

1. ENDORSES the Executive Board's report;

2. URGES Member States:

(1) to intensify their action to introduce and implement drug policies along the lines endorsed by the Thirty-fifth World Health Assembly in resolution WHA35.27;

(2) to intensify training of personnel to achieve the objectives proposed by the Programme;

(3) to strengthen cooperation among themselves for the implementation of the Programme;

3. URGES the regional committees:

(1) to encourage Member States in their region to give support to the Programme along the lines endorsed by the Thirty-fifth World Health Assembly;

(2) to ensure adequate resources in their regional programme budgets to support Member States in their efforts;

(3) to review periodically progress in implementing the Programme in their region and report thereon to the Executive Board;

4. REQUESTS the Executive Board:

- (1) to continue to review closely progress in implementing the Programme;
- (2) to study major outstanding issues and define principles for resolving them;
- (3) to report periodically to the Health Assembly on the above;

5. REQUESTS the Director-General:

- (1) to intensify WHO's technical cooperation with Member States that so desire in implementing national drug policies in conformity with the Programme;
- (2) to facilitate technical cooperation among countries in carrying out the Programme and specific components of it;
- (3) to foster coordinated action, including research, among all partners involved throughout the world in order to ensure the most effective and efficient implementation of the Programme;
- (4) to continue to ensure that adequate resources are provided to implement the Programme and to attract extrabudgetary funds to the programmes of developing countries;
- (5) to monitor and evaluate the Programme on a continuing basis;
- (6) to continue to report periodically to the Executive Board on progress achieved and problems encountered.

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RATIONAL USE OF DRUGS

The Thirty-seventh World Health Assembly,

Recalling resolutions WHA24.56 and WHA31.32;

Recognizing the progress achieved in the development of the WHO Action Programme on Essential Drugs, the Organization's programme on drug information and other WHO activities in this field;

Concerned by the high proportion of health budgets spent on drugs in many countries, particularly in developing countries, thereby limiting the remaining funds available for the provision of adequate health care to the whole population through primary health care;

Realizing the problems of inappropriate and excessive prescription and use of drugs;

Aware of the need for further studies, inter alia, in clinical pharmacology, to facilitate the improvement of prescription practices, with regard to effects, adverse reactions and the possible interaction of drugs;

Realizing the need for better knowledge of actual drug consumption and prescription practices;

Aware of the importance of training of health personnel to ensure the appropriate use and prescription of drugs;

Recognizing the importance of unbiased and complete information about drugs to health authorities, physicians, pharmacy staff, other health workers and the general public;

Aware of the need for better information on drug marketing procedures and practices;

Recognizing the achievement of local drug and therapeutic committees established in several Member States;

Noting with satisfaction the growing interest shown by governments, registration authorities, the pharmaceutical industry, patients' and consumers' organizations and health workers in information about, and the marketing of, drugs;

Convinced of the need for cooperation between all interested parties in order to achieve a more rational use of drugs;

URGES Member States:

- (1) to support the development and dissemination of unbiased and complete drug information;
- (2) to collaborate in the exchange of information on the use and marketing of drugs through bilateral or multilateral programmes and WHO;
- (3) to strengthen the national capabilities of developing countries in the selection and proper use of drugs to meet their real needs and in local production and quality control, wherever feasible, of drugs;
- (4) to intensify action to introduce and implement comprehensive and rational drug policies;

2. REQUESTS the Director-General:

(1) to continue to develop activities at national, regional and global levels aiming at the improvement of use of drugs and of prescription practices and the provision of unbiased and complete information about drugs to the health profession and the public;

(2) (a) to foster the exchange of information among Member States on drugs including registration and marketing practices;

(b) to review the machinery within WHO concerning the dissemination of unbiased information relevant to the appropriate use of essential and other drugs; and to introduce appropriate improvements therein;

(3) to arrange, in 1985, a meeting of experts of the concerned parties, including governments, pharmaceutical industries, patients' and consumers' organizations to discuss the means and methods to ensure rational use of drugs, in particular through improved knowledge and flow of information and to discuss the role of marketing practices in this respect, especially in developing countries;

(4) to submit a report on the results of the meeting of experts and the implementation of this resolution to the Thirty-ninth World Health Assembly.

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