

EDUCATION AND TRAINING IN HAEMATOLOGY IN LATIN AMERICA

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This analysis will be divided into two sections: a) general aspects of the education and training in haematology in the entire Latin American region and b) specific aspects of the teaching of haematology in selected Latin American countries.

a) General Aspects of Education and Training in Haematology in Latin American Region

The International Society of Haematology (ISH) has played a central role in the teaching of haematology in Latin American countries. In close relation to the ISH, the Programa de Intercambio de Hematólogos Latinoamericanos (Latin American Program of Exchange of Haematologists), the Comité Iberoamericano de la Sociedad Internacional de Haematología (Iberoamerican Committee of the International Society of Haematology), the Enciclopedia Iberoamericana de Haematología (Iberoamerican Encyclopedia of Haematology), the Escuela Iberoamericana de Haematología (Iberoamerican School of Haematology) and the journal *Sangre* have been points relevant to the education and training in haematology in Latin America. Three manuals of haematology—one in Quality Assurance in Haematology,⁽²⁾ another in Anemia⁽³⁾ and another in Bleeding and Clotting Disorders,⁽⁴⁾ prepared by the World Health Organization and Centers for Disease Control and translated into Spanish—have been distributed at no cost to ISH members living in Spanish- and Portuguese-speaking countries.

As a result of this interchange of ideas, initially among Latin American haematologists and later with European haematologists, mainly from Spain and Portugal, and with the continued support of the ISH, the teaching and training in haematology within Latin American countries has improved substantially. Specific data of these activities are briefly described herein.

a.1) The Programa de Intercambio de Hematólogos Latinoamericanos

In 1968, Dr. L. Sánchez-Medal (México) founded this program during the ISH meeting held in New York. Between 1968 and 1981, the program supported, with the valuable help of Travenol-Hyland International, the direct contact and exchange of knowledge and experiences of Latin American haematologists. Supported by the program, 107 haematologists traveled to Latin-American meetings of haematology and other haematological academic activities. The program also promoted the creation of the Latin-American Cooperative Groups in Haematology; it was chaired by Drs. L. Sánchez-Medal (México), T. Arends (Venezuela), G. Ruiz-Reyes (México) and A. Restrepo (Colombia). In 1981, economic support to the program was withdrawn and accordingly, the program was stopped.

a.2) The Comité Iberoamericano de la Sociedad Internacional de Hematología

In May 1986, during the ISH meeting held in Sydney (Australia), Dr. M. Jamra (Brasil) made a proposition to create an organization, derived from the ISH, that would gather the activities of the Latin American societies of haematology recognized by the ISH; the proposition was accepted at the Counselors meeting of the Interamerican Division (IAD) of the ISH. In October 1986, during the First Iberoamerican Congress of Haematology, held in Salamanca (Spain), the president of the meeting, Dr. A. López-Borrasca (Spain), extended the idea of this Latin American organization-to-be, to gather all haematologists in the world speaking Spanish or Portuguese. The by-laws of this organization were prepared by Dr. G. Ruiz-Reyes (Mexico). After amendments and under the surveillance of the Secretary General of the IAD of the ISH, Dr. M. Pavlovsky (Argentina), it was approved on May 11, 1987, during the 11th Congress of the Colegio Brasileiro de Hematología held in Belo Horizonte (Brasil). The main goal of this association, joining the previously described program and the idea of gathering the experiences of Iberoamerican haematologists all over the world, is to establish interchange of ideas and experiences among Iberoamerican Societies of Haematology. "The Committee" is comprised of a chairperson, the presidents of all national societies of haematology of both American and European Spanish or Portuguese-speaking countries, the national counselors or representatives of such countries within the ISH, the Secretary-General of the IAD of the ISH and the chairpersons of the Latin American Cooperative Groups of Haematology.

The charter meeting of this organization was held in Belo Horizonte (Brasil) and Dr. G. J. Ruiz-Argüelles (México) was elected its first chairman. The activities of this organization have been mainly educational: distribution of information concerning the activities of all Iberoamerican societies of haematology to its members, support of the publication of the Iberoamerican Encyclopedia of Haematology,⁽¹⁾ etc. The regular meetings are held every other odd year, during the annual meeting of an associated Iberoamerican Society of Haematology; the members of "The Committee" attending these meetings participate in the academic activities. In 1989 Dr. Ruiz-Argüelles (México) was re-elected as chairman; in 1993, Dr. A. Arends (Venezuela) took over this position. The Cooperative Groups of this organization are:

- a) Latin American Cooperative Group on Haematologic Malignancies. Chair: Dr. S. Pavlovsky (Argentina).
- b) Latin American Cooperative Group on Bone Marrow Transplantation. Chair: Dr. R. Pasquini (Brasil).
- c) Latin American Cooperative Group on Teaching of Haematology. Chair: Dr. M. S. Córdova (México).
- d) Latin American Cooperative Group on Haemoglobinopathies and Thalassaemias. Chair: Dr. G. Martínez (Cuba).
- e) Latin American Cooperative Group on Hemostasis and Thrombosis (Grupo CLAHT). Chair: Dr. C. L. Arocha-Piñango (Venezuela)
- f) Iberoamerican School of Haematology. Chair: Dr. A. López-Borrasca (Spain).

The Grupo CLAHT has been particularly active, having produced two books and celebrating regular meetings every two years. Together with the Spanish and Portuguese

Societies of Haemostasis and Thrombosis, this group has an official publication: The Revista Iberoamericana de Hemostasia y Trombosis (Iberoamerican Journal of Thrombosis and Hemostasis), published regularly since 1988 and including Latin American haematologists in its editorial board. The Education and Training Committee of the ISH has actively supported the activities of all these committees.

a.3) *The Enciclopedia Iberoamericana de Hematología*

This set of four books,⁽¹⁾ written by more than 300 authors living in different parts of the world but born in any Iberoamerican country, is the first achievement of the Escuela Iberoamericana de Haematología. The idea of writing this Encyclopedia was envisioned by Dr. A. López-Borrascas (Spain), and its Editorial Council was composed by himself as the director general and Drs. C.L Arocha-Piñango (Venezuela), C. Campos-Guerra (Brasil), A. Parreira (Portugal), S. Pavlovsky (Argentina), G. J. Ruiz-Argüelles (México) and J. F. San-Miguel (Spain). The set of books, incidentally the largest one in haematology published in the world, was released during 1992 as part of the activities of the Fifth Centennial of the arrival of the Spaniards into America. The Encyclopedia, printed by the Universidad de Salamanca itself, includes novel aspects of haematology as well as parts devoted to geographic haematology and the history of haematology in Latin America, Spain and Portugal. A second edition of the Encyclopedia is being considered, and the possibility of producing it as a CD-ROM is being studied as a joint effort with the University of Washington at Seattle.

a.4) *The Escuela Iberoamericana de Hematología*

The Escuela Iberoamericana de Hematología was founded at the First Iberoamerican Congress of Haematology held in Salamanca, Spain, in 1986. It was initially envisioned by Dr. A. López-Borrascas (Spain), its current director, as a result of the interchange of knowledge among Latin America, Spain and Portugal. As its initial activity, the Escuela produced the Enciclopedia Iberoamericana de Hematología⁽¹⁾ in 1992 and has also organized update courses. The Escuela is also part of the Iberoamerican Committee of the ISH.

a.5) *ISH Meetings in Latin America*

The ISH has played a central role in the education and training of haematology of Latin American countries. The ISH charter meeting was held as a joint meeting of haematologists of México and the United States in 1946 in Dallas, Texas, and México City; its main goal was educational. Since then, five meetings have been held in Latin America (Table 1); in all instances, the participation of local haematologists has been large, and consequently the effects on the teaching of haematology in these countries has been considerable.

Table 1. ISH Meetings held in Latin America

Year	City	Attendance
1946	Dallas / México City	90

1952	Buenos Aires (Argentina)	477
1962	México City	1000
1972	Sao Paulo (Brasil)	1800
1984	Buenos Aires (Argentina)	1293
1994	Cancún (México)	2630

The last ISH meeting in America was organized in Cancún, México, in 1994 by G. Ruiz-Reyes (México). As a result of the economic balance, three manuals of haematology, one in Quality Assurance in Haematology,⁽²⁾ another in Anemia⁽³⁾ and another in Bleeding and Clotting Disorders,⁽⁴⁾ prepared by the World Health Organization and Centers for Disease Control, were translated into Spanish and distributed at no cost to all ISH members living in Spanish- and Portuguese-speaking countries. Inasmuch as these manuals have been prepared to be useful in small laboratories, they are particularly important for both the teaching and practice of haematology in developing countries. In many ISH meetings in America and in local haematology meetings in Latin American countries, Dr. J. R. McArthur (USA), Director of the American Society of Haematology Slide Bank and Chairman of the Education and Training Committee of the ISH, has displayed and sold in some instances (and donated in others) not only the slide collection but also Educational CD-ROMs on different aspects of haematology.

a.6) The Journal Sangre (Blood)

Founded in 1956 by A. Raichs (Spain) and published on a regular basis, *Sangre* is the official journal of several Latin American and European Societies of Haematology: Argentina, Brasil, Chile, Colombia, Costa Rica, Cuba, Ecuador, México, Perú, Portugal, Salvador, Spain, Uruguay and Venezuela. *Sangre* publishes on a regular basis the abstracts and proceedings of the Spanish and most Latin American congresses of haematology and includes in its editorial board various Latin American haematologists involved in teaching and training in haematology. *Sangre* also has corresponding editors in Argentina, Bolivia, Brasil, Chile, Colombia, Costa Rica, Bolivia, Perú and México. *Sangre's* current Editor-in-Chief, Dr. M. Giralt (Spain), is a strong supporter of the educational objectives of the journal within Latin America, Portugal and Spain.

b) Specific Aspects of the Teaching of Haematology in Selected Latin American Countries

b.1) Colombia

There are 25 schools of medicine in the country and all of them include haematology in their programs. The undergraduate courses last two months and the most frequently used textbooks are *Fundamentos de Medicina* by Vélez, Rojas, Borrero and

Restrepo (Colombia) and *Fundamentos de Haematología* by G. J. Ruiz-Argüelles (México). There are three University-affiliated health care facilities within the country that offer two-year postgraduate training in haematology after completing three years of training in Internal Medicine. There is no Board of Certification in Haematology.

b.2) Costa Rica

There are four schools of medicine in the country and all of them include haematology in their programs. The undergraduate courses last six months, and the most frequently used textbook is *Hematología Básica* by Elizondo and Rojas (Costa Rica). There is one University-affiliated health care center that offers a two-year postgraduate training in haematology after completing Internal Medicine. There is no Board of Certification in Haematology.

b.3) Guatemala

There are two schools of medicine in the country and one includes haematology in its program; its course lasts four weeks and the textbooks are Harrison's *Principles of Internal Medicine* (USA) and Cecil's *Textbook of Medicine* (USA). There are no centers within the country that offer postgraduate training in haematology, and there is no Board of Haematology.

b.4) México

There are 52 schools of medicine in the country and all of them include haematology in their programs, as a separate subject. The undergraduate courses last three to six months and the most frequently used textbooks are *Fundamentos de Haematología* by G. Ruiz-Argüelles (México) and *Introduction to Haematology* by S. Rappaport (USA). Spanish translations of the latter are available but considerably outdated. Twenty seven haematologists, active members of the Agrupación Mexicana para el Estudio de la Hematología A.C.—AMEHAC—(Mexican Society of Haematology), headed by G.J. Ruiz-Argüelles (México), published the textbook *Fundamentos de Haematología* in 1994 and reprinted it, with amendments, in 1995,⁽⁵⁾ to be used by undergraduate students, focusing on specific haematological problems in Latin America in general and in México in particular. The profits of the book sales belong to the AMEHAC funds. A booklet prepared as an abstract of this book is used by the faculty of the Academia Nacional de Medicina (National Academy of Medicine) to deliver updated courses to general practitioners within the country. There are ten University-affiliated health care facilities within the country that offer two-year postgraduate training programs in haematology after completing three years of training in either Pediatrics or Internal Medicine. The AMEHAC has held annual meetings on a regular basis for 36 years. The last meetings have organized an Education Program in Haematology that in the two last instances (1994 and 1995), have been printed as supplements to the *Revista de Investigación Clínica*, the Mexican medical journal with the highest impact factor.^(6, 7) In 1994, the XXXV AMEHAC meeting was held as a joint meeting with the XXV ISH meeting. Every year, the official journal of the AMEHAC, *Sangre*, prints abstracts of the papers presented during the annual meetings. The Consejo Mexicano de Hematología (Mexican Board of Haematology), founded in 1986, has certified 219 haematologists for a period of five

years; the certification can be extended by re-certification. In 1994, as a joint effort with a non-profit organization, the Fundación Mexicana para la Salud (Mexican Health Foundation), the organizing committee of the XXV ISH meeting in Cancún, and the AMEHAC, a fund to support education and research in haematology in the country was established; in its one-year existence, it has supported three regional meetings of haematology and the attendance of young Mexican researchers to international haematology meetings. The steering committee of the fund is comprised of former presidents of the AMEHAC.

b.5) Uruguay

There is one school of medicine in the country that includes haematology in its program, with a duration of two months. One University-affiliated center within the country offers a three-year postgraduate training in haematology after spending one year in internal medicine, and there is no Board of Haematology.

b.6) Venezuela

There are nine Schools of Medicine in the country and all of them include haematology in their programs, but as part of the courses of biochemistry, physiology, physiopathology and medical clinics. The most frequently used textbook is *Hematología Básica* by J.L. Pérez-Requejo (Venezuela). There are two University-affiliated health care facilities within the country that offer a two-year postgraduate training in haematology after completing three years of training in either Pediatrics or Internal Medicine. There is no Board of Haematology.

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