

The European Society of Regional Anaesthesia and Pain Therapy (1982–2012)

30 Years Strong

André A.J. van Zundert, MD, PhD, FRCA, EDRA, FANZCA*
and John A.W. Wildsmith, MD, FRCA, FRCPEd, FRCSEd, FDSRCSEng†

Abstract: Inspired by the earlier establishment of the American Society of Regional Anesthesia, but with a structure to accommodate the diverse languages and health care systems of Europe, the European Society of Regional Anaesthesia (ESRA) held its first scientific meeting in 1982. During the following 30 years, ESRA grew from strength to strength and implemented a number of important educational initiatives, the story of these developments being the subject of this review. ESRA's prime function is to publicize the evidence on regional anesthesia and encourage its further development, but it also led the way in democratizing European anesthesia societies by being the first to open its membership to all. A recent revision of the constitution has further increased the society's democratic nature.

Educationally, activities grew from a single annual congress to include zonal meetings, cadaver workshops, a major online program, and collaborations (guidelines and conferences) with other societies. Finally, the introduction of a Diploma qualification in regional anesthesia was an entirely novel project.

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The European Society of Regional Anaesthesia (ESRA) held its first scientific meeting in the McEwan Hall of the University of Edinburgh, Scotland, on September 16 to 18, 1982. The first European anesthetic organization open to anyone interested in its subject, ESRA quickly established itself as a major resource for practitioners of regional anesthesia. In commemoration of the 30th anniversary of that first meeting, we present this history, noting key events and acknowledging the people who drove the society forward.

This account is based on the personal reminiscences of the authors and other senior members of the society, archived

From the *Department Of Anesthesiology, ICU & Pain Therapy, Catharina Hospital-Brabant Medical School, Eindhoven, the Netherlands; and †Emeritus Professor Of Anesthesia, University of Dundee, Dundee, United Kingdom. Accepted for publication May 22, 2013.

Address correspondence to: André A.J. van Zundert, MD, PhD, FRCA, EDRA, FANZCA, Catharina Hospital-Brabant Medical School, Michelangelolaan 2, 5623EJ Eindhoven, the Netherlands (e-mail: zundert@iae.nl).

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records, and relevant published literature, with major events summarized in Figure 1.

AMERICAN ROOTS

Like most societies of regional anesthesia, ESRA owes its origin and mission to the model set by the American Society of Regional Anesthesia (ASRA). Formed originally by Gaston Labat in 1923, ASRA faded after Labat's death in 1934¹ but was revived as interest in regional techniques grew in the early 1970s, primarily through the initiative of Alon Winnie of Chicago.² Winnie recruited a small group of like-minded individuals as ASRA's first officers, and, in 1975, these 5 "founding fathers" drew up the original bylaws, including a requirement to form an Advisory Board. These first officers and advisors (Table 1) had many personal and professional connections in Europe. Notably, Ben Covino, then senior vice-president for scientific affairs at the American component of the Swedish pharmaceutical company Astra, had extensive European contacts, and worked with ESRA's first president, Bruce Scott, in Edinburgh in 1976.

ASRA's inaugural scientific meeting in 1976 led to the first eastward link across the Atlantic, the 1978 annual meeting of the British Obstetric Anaesthetists Association, held in Edinburgh on September 1, just before the Fifth European Congress of Anaesthesiology in Paris.^{2,3} Which European-based anesthetist was the first to make the westward connection by attending an ASRA scientific meeting is not known, but several (including Bruce Scott, Hans Nolte, and Tony Wildsmith) attended ASRA's fourth annual meeting in Orlando, Florida, in 1979. Soon after, they visited Covino, then at the University of Worcester, Massachusetts. In informal discussions, he encouraged the formation of a European society. Subsequently, Nolte wrote to ASRA, inviting the group to sponsor a satellite meeting before the Seventh World Congress of Anaesthesiology in Hamburg in 1980.²

ASRA agreed, and the satellite meeting was held in Heidelberg on September 22 to 25, 1980 (just after the World Congress) in the same conference hall in which Carl Koller's discovery of the local actions of cocaine was first announced to the world. Organization was overseen by ASRA's first executive secretary, John Hinckley, who did much to support ESRA's early development. The faculty included all who had been involved with the formation of ASRA (Table 1), and many others from Europe and the rest of the world (see conference program, Supplemental Digital Content 1, <http://links.lww.com/AAP/A92>). In addition to ASRA's funding, educational grants from several industrial sponsors were crucial. These included Astra Pharmaceutical Products Inc and Penwalt Rx Division of the United States, as well as Bayer AG, Dr E Fresenius, Fa Biotest-Serum Inst GmbH, and ICI-Deutschland, all of Germany. The meeting, an academic and social success, confirmed that Europeans were keen to attend such conferences in the numbers needed to make

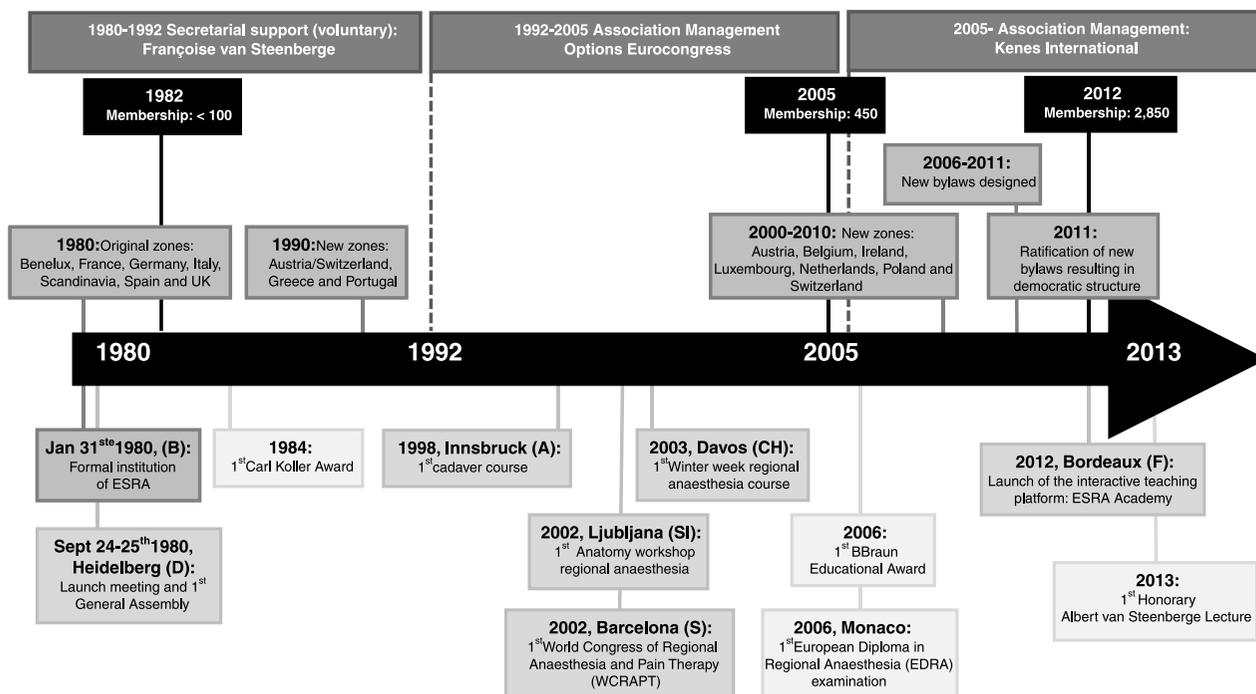


FIGURE 1. ESRA timeline.

a society viable. Equally important, the meeting showed that there were enough European speakers of sufficient quality to provide attractive programs into the future.

THE SOCIETY IS CONSTITUTED

At the same time, work on the actual formation of a European society was in the hands of Albert Van Steenberghe. Encouraged by another on ASRA’s Board (John Bonica), Van Steenberghe, who later became ESRA’s first secretary general, was ideally placed to lead the creation of the new society. He lived in Belgium, the administrative center of the European Economic Community (now the European Union), and he was fluent in several languages. Intensive work through 1979

TABLE 1. Individuals From ASRA Who Did Much to Support the Formation of ESRA

Officers

- President: Alon P. Winnie
- Vice-President: L. Donald Bridenbaugh
- Secretary-Treasurer: Harold Carron
- Director at Large: Jordan P. Katz
- Director at Large: P. Prithvi Raj

Advisory Board

- John J. Bonica
- Daniel C. Moore
- Benjamin G. Covino
- Philip R. Bromage
- Pere C. Lund
- Monroe Trout

Executive Secretary

- John Hinckley

led to ESRA’s formal institution by Belgian Royal Decree signed by King Baudouin on January 31, 1980.⁴ The original “Beheerders” (literally curators, and ESRA’s own “founding fathers,” Fig. 2) were Albert Van Steenberghe (Belgium), Hans Nolte (Germany), Arno Hollmén (Finland), Bruce Scott (UK), and Françoise Van Steenberghe (Albert’s wife), who acted as the group’s secretary. At Heidelberg, 2 sessions were held to launch ESRA: an “Organizational Meeting” on September 24, 1980, to allow the concept to be discussed informally, and the first “General Assembly” the following day.

The founders endorsed enthusiastically the decision to form a group with the same general principles as ASRA (Table 2), but they recognized that the administrative structure would need to reflect Europe’s various countries, languages, and currencies. Two committees were formed (Table 3) under the chairmanship of Bruce Scott: the first to lead the establishment of the new society across Europe and the other to organize the first scientific meeting. ASRA again agreed to provide funding, and several companies (Astra Pharmaceuticals Ltd, Duncan Flockhart & Co Ltd, Dupont UK Ltd, and Roche Products Ltd, all of the UK) provided advance sponsorship. This meeting, held in Edinburgh, was as successful as the earlier one in Heidelberg, fully establishing ESRA as an independent entity.

THE ADMINISTRATIVE STRUCTURE

Initially, ESRA’s leaders adopted a zonal structure to deal with the management challenges specific to Europe. Major annual scientific meetings were to be conducted in English, but each geographical (or linguistic) area was allowed, once it had sufficient members, to establish a committee to arrange additional meetings in its own language(s). The chairmen of these zonal committees made up the main Society Board, and the Office Bearers (President, Secretary General, and Treasurer—Table 4) were chosen from among these individuals. The first zones were Benelux, British Isles, France,

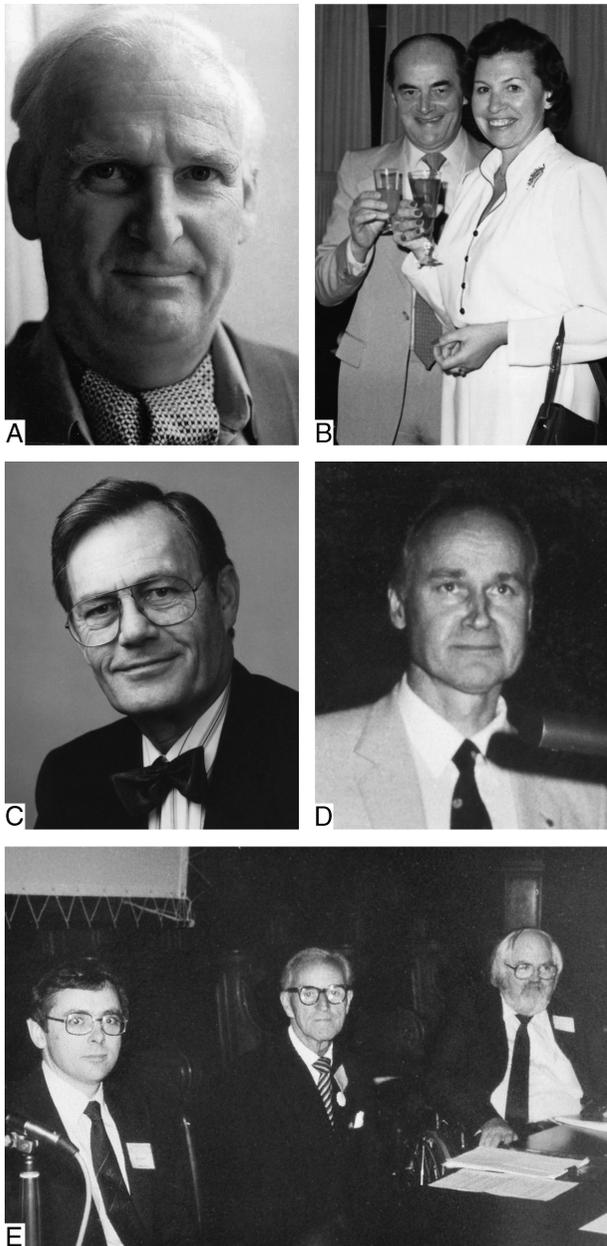


FIGURE 2. ESRA's original 5 curators: Bruce Scott (A), Albert and Françoise van Steenberge (B), Hans Nolte (C), and Arno Hollmén (D) and the members of the first panel at the 1982 inaugural annual meeting in Edinburgh, left to right: Tony Wildsmith, Alfred Lee, and Alon Winnie (E).

Germany, Italy, Scandinavia, and Spain. Greece, Portugal, and Switzerland/Austria were added in 1990, Turkey in 1994, and Poland in 1997. For the first decade of ESRA's existence, all administrative work was undertaken by the Board members aided by their zonal committee colleagues and families, a huge debt being owed to Françoise Van Steenberge. However, as the society and the annual meetings grew, it became clear that professional support was both necessary and affordable. Options Euro-Congress provided support from 1993 through 2005. More recently, Kenes International has filled the management role. This guidance brought a high degree of professionalism and a major improvement in ESRA finances.

TABLE 2. General Principles Absorbed From ASRA in the Formation of ESRA

1. A society for all physicians and scientists interested in regional anesthesia for obstetrics, surgery, and pain control
2. Encourage specialization, research, courses, workshops, and publication
3. In all ways develop safe practice
4. A society working within geographical, not national boundaries
5. No medico-political activity beyond influencing training program

Managing the myriad currencies in Europe before the establishment of the euro was another early ESRA challenge, a problem exaggerated by the difficulty of transferring funds out of some countries. Exchange rates favorable to the banks and commission charges on transfers could result in the loss of up to a third of the original payment. To minimize losses, membership subscriptions were collected by the zonal committees, when possible, and transferred centrally in a single annual payment. In addition, ESRA offered life memberships through a one-off payment. This option, well supported particularly by British members, provided members with a discount and allowed the society to build its financial reserves faster than would have been possible otherwise.

The fall of the Communist regimes of Eastern Europe led to a major expansion for ESRA, with the society working hard to embrace the interests of clinicians in those countries. However, this development exacerbated the problem of the Board having grown too large as new zonal committees had formed or those encompassing several countries (British Isles, Benelux, and Switzerland/Austria) split into their constituents. The result was a loss of the cohesion and efficiency typical of the smaller organization in the early years. Between 2005 and 2011, this difficulty was addressed by initiating a major change to the society's constitution. The process required much consultation to address the interests of all groups and was led by Narinder Rawal, José de Andrés, Nick Denny, Slobodan Gligorijevic, Marc Van de Velde, and Harald Rettig.

At the 2010 General Assembly in Porto, new bylaws were approved, introducing a Council, a sort of "parliament," formed by elected representatives from the national societies, which replaced zonal committees. Each national society is represented on Council, but the voting power of the representatives depends on the number of members in their countries.⁵ The Council

TABLE 3. ESRA's Foundation Committee Structure

The ESRA Committee	
Dr D.B. Scott (Chairman)—UK	
Prof E. Fava—Italy	
Prof A.I. Hollmén—Finland	
Prof M.A. Nalda-Felipe—Spain	
Dr O. Schulte-Steinberg—Germany	
Dr A. Van Steenberge—Belgium	
Prof A.M. Wilkening—France	
Edinburgh Scientific Meeting Organizing Committee	
Dr D.B. Scott (Chairman)	
Dr D.G. Littlewood	
Dr J.H. McClure	
Dr J. A.W. Wildsmith	

TABLE 4. Year of First Appointment of ESRA Office Bearers (1982–2012)

Year	President	Secretary	Treasurer
1982	Bruce Scott	Albert Van Steenberge	Otto Schulte-Steinberg
1989	Hans Nolte	André van Zundert	Tony Wildsmith
1993	Albert Van Steenberge		Tony Rubin
1997	Athina Vadalouca		José de Andrés
2000	André van Zundert	Narinder Rawal	
2003	Slobodan Gligorijevic		
2006	Giorgio Ivani		
2009	Marc Van de Velde	José de Andrés	Harald Rettig
2012			Geert-Jan van Geffen

meets annually to consider the accounts and other matters proposed by the Board; and in every third year it elects the officers of the society, notably the President, Secretary-General, and Treasurer. Because these matters must be approved and ratified by the General Assembly held during each annual scientific meeting, ESRA became more efficient, democratic, and transparent than it had been. From 2013, the current Executive Officers (Table 4), the Board, and Council will be supported by a professional director and secretariat charged with managing the society's affairs on a day-to-day basis. In mentioning support for the society, it is appropriate to acknowledge the contributions made by colleagues from the pharmaceutical and equipment industries, notably Astra/AstraZeneca, over the years.

CONFERENCES AND WORKSHOPS

The annual scientific meeting has always been the focus of the society's educational program. The first meeting in Edinburgh began with a session on history, with Alon Winnie as one of the speakers (Fig. 2E). The meeting lasted for 2 days with only 1 session at a time (see conference program, Supplemental Digital Content 2, <http://links.lww.com/AAP/A93>). But over the years the scientific meeting has grown. The most recent,

in Bordeaux, lasted 4 days and had multiple parallel sessions including free papers and poster displays. Recently, ESRA began offering the option of presenting a "poster" in electronic format. These meetings have always been held in major European cities (Table 5) with the social program typically featuring the cuisine and culture of the host country. These social components, together with the friendships that spring from them, add to the pleasure of attending and ensure that registrants come from all over the world. These conferences were held jointly with EuroPain between 1998 and 2000, and the European Society of Obstetric Anaesthesiology in 2001, but continued collaboration with ASRA has had a more lasting effect.

The 1984 meeting in Vienna was a joint venture marking the centenary of Koller's discovery, and the societies were delighted to play host to his daughter, Hortense, who authored the definitive biography of her father.⁶ This began a 4-year cycle of joint regional anesthesia meetings held as satellites to World Congresses of Anaesthesiology. These meetings took place in Williamsburg (1988), Brussels (1992), Auckland (1996 when it became known as the International Symposium on Regional Anesthesia), and Québec (2000). The success and growth of these events resulted in the decision to globalize regional anesthesia and establish the freestanding World Congress on

TABLE 5. Venues of Annual Conferences and the Relevant Koller Award Recipients

Year-Venue	Koller Awardee	Year-Venue	Koller Awardee
1982-Edinburgh, UK	—	1998-Geneva, Switzerland	Hans Nolte, Germany
1983-Leiden, Netherlands	—	1999-Istanbul, Turkey	Albert Van Steenberge, Belgium
1984-Vienna, Austria	J Alfred Lee, UK	2000-Rome, Italy	Prithvi Raj, USA
1985-Rome, Italy	John Bonica, USA	2001-Warsaw, Poland	Paul Buchöj, Sweden
1986-Malmö, Sweden	Torsten Gordh, Sweden	2002-Barcelona, Spain	Michael Cousins, Australia
1987-Paris, France	Luc Lecron, France	2003-Valetta, Malta	Henrik Kehlet, Denmark
1988-Mainz, Germany	Robert Macintosh, UK	2004-Athens, Greece	Tony Wildsmith, UK
1989-Lisbon, Portugal	Philip Bromage, USA	2005-Berlin, Germany	Mathieu Gielen, Netherlands
1990-Bern, Switzerland	Bruce Scott, UK	2006-Monte Carlo, Monaco	Paolo Busoni, Italy
1991-Athens, Greece	Ben Covino, USA	2007-Valencia, Spain	Felicity Reynolds, UK
1992-Brussels, Belgium	Nicholas Greene, USA	2008-Genoa, Italy	Dag Selander, Sweden
1993-Dublin, Eire	James Moore, UK	2009-Salzburg, Austria	Barrie Fischer, UK
1994-Barcelona, Spain	Fidel Pagès, Spain	2010-Porto, Portugal	Narinder Rawal, Sweden
1995-Prague, Czech Republic	Daniel Moore, USA	2011-Dresden, Germany	Joseph Neal, USA
1996-Nice, France	Bertil Lofström, Sweden	2012-Bordeaux, France	Per Rosenberg, Finland
1997-London, UK	Alon Winnie, USA		

Regional Anaesthesia and Pain Therapy (Barcelona 2002, Rio de Janeiro 2006, and Sydney 2013) in collaboration with all societies of regional anesthesia.

ESRA's activities took a major step forward with the board's establishment in 1998 of the very popular Cadaver Workshops held in Innsbruck, Austria, under the guidance of Slobodan Gligorijevic. Other important events were added in 2002: the Winter Week in Switzerland by van Zundert and Gligorijevic, and anatomical workshops for Eastern Europe in Ljubljana, Slovenia by Gligorijevic and Rawal. Participants receive excellent instruction from professional anatomists and widely experienced users of regional techniques.

Zonal meetings—small-scale versions of the major conferences with content and language appropriate to local conditions—have also contributed greatly to ESRA's success. The United Kingdom has had an annual meeting since the mid-1980s and Spain since 1997 (with an average attendance of more than 500). Two Mediterranean and Balkan congresses organized by the Greek zone each attract more than 600 participants.

HONORS AND AWARDS

Following the excellent example of ASRA's Labat Award, which marks the contribution of a major figure in the field, ESRA instituted the Carl Koller Gold Medal at the Vienna meeting in 1984. The Koller family contributed financially, and Koller's daughter presented the first medal to Dr J. Alfred Lee of the United Kingdom (Fig. 2E). Since then, the annual award has gone to a succession of leading figures from around the world (Table 5). Astra/AstraZeneca, Sweden, sponsored the award for many years, but Sintetica, Switzerland, took on this responsibility in 2012. In 2005, an award for outstanding merit in the training of regional anesthesia methods and procedures was instituted, sponsored by B. Braun.

The ESRA research grant fund was established in collaboration with AstraZeneca in 1998 to encourage clinicians and basic scientists to perform studies regarding regional anesthesia. The first award was made in 1999 to Dr E. Zohar from Israel. In 2012, ESRA introduced an eponymous lecture honoring Albert Van Steenberg. Papers by Europeans on subjects relevant to regional anesthesia and published during the previous year are reviewed, and the best is selected as the basis for the lecture, which is presented at the annual meeting. To encourage those at the beginning of their careers, ESRA also presents awards to the authors of the best free papers and posters.

PUBLICATIONS

Once ESRA was firmly established, many members felt strongly that it should develop its own journal, quite literally as a competitor of ASRA's journal, then *Regional Anesthesia*. Bruce Scott and Tony Wildsmith, the first Europeans to serve on the Editorial Board of *Regional Anesthesia* were joined by André van Zundert in arguing against this proposal. The 3 recognized that the demand for a separate journal was often fueled by a desire to find a less rigorous avenue for publication of research that did not meet the required standard. Their views prevailed, producing 3 great benefits.

First, with the support of then editor-in-chief Gerry Ostheimer, *Regional Anesthesia* (later renamed *Regional Anesthesia & Pain Medicine*) became the official journal of both, and eventually all, societies of regional anesthesia. This has helped the journal achieve both high status and one of the best Impact Factors in anesthesiology.⁷ The collaboration between the societies has extended to the production of joint clinical

guidelines, the first of these being published, on ultrasound-guided regional anesthesia, in 2009.⁸

Second, in looking for an alternative publishing initiative, ESRA developed the *International Monitor* concept in 1989. In this, all anesthesia-related journals were scanned and reviewed by an expert editorial team, led successfully by Mathieu Gielen until 1995 and Narinder Rawal until 2005. Succinct summaries of relevant original research were presented, giving the reader quick access to material of immediate personal relevance. *The International Monitor on Regional Anaesthesia and Pain Therapy*, sponsored initially by Astra, appeared quarterly and was very popular, but the funding for this useful resource ended in 2005 and print publication ceased.

Third, as the size and authority of the annual meetings grew, demand increased for key meeting elements to be published. This need was met initially by newsletters and expanded conference brochures, including the highly successful *HIGHLIGHTS in Regional Anaesthesia* series. However, the information is now provided more efficiently through Web sites⁹ (which now include *Monitor*-style reviews under the heading "What's New") and DVDs issued at each annual meeting; together with other items, these now comprise the ESRA Academy. Another new educational activity for ESRA is the collaboration with PROSPECT, a Web-based tool for providing evidence-based, procedure-specific recommendations for the management of postoperative pain.¹⁰

THE EUROPEAN DIPLOMA IN REGIONAL ANAESTHESIA AND PAIN THERAPY

Academic training and qualifications vary considerably across Europe. At one extreme, some countries have structured programs of clinical training and a formal examination process leading to independent practitioner status. Elsewhere, formal training is shorter in duration and involves no formal qualification, so that subsequent professional advancement and development depend on the individual's determination and ambition. The quality (and status) of the anesthetist, therefore, varies considerably across the continent, but even where structured training is available, there is no definitive indicator of the resulting quality of practice. In addition, trainees in all systems expressed a desire for an academic qualification to help them with their career aspirations.

The ESRA Board of Directors discussed at length the issues surrounding the proposal of a diploma, especially its validity as an indicator of clinical proficiency and the difficulties of organizing a suitable examination. The project took several years to implement, with many individuals and societies expressing skepticism about the validity of, and need for, such an examination. In the end, the board decided to proceed under the collective leadership of André van Zundert, Giorgio Ivani, Narinder Rawal, and Alain Borgeat, with valuable assistance from Chandra Kumar with his experience at the Royal College of Anaesthetists. The examinations, with examiners drawn from all over Europe, are held at the time of the annual meeting. Part I of the examination is a multiple-choice examination that must be passed before the candidate takes the part II oral examination a year later. There were some initial organizational troubles—notably defining the requirements for being an examiner—but efforts to overcome these have improved the examinations' content, quality, and consistency. The improvement is reflected in the number of candidates: Only 4 sat for the first part I examination in Monaco in 2006, but there were 156 candidates in Bordeaux in 2012, with 99 progressing to Part II.

IN SUMMARY

Although the inspiration for ESRA came from ASRA and its founders, the society inevitably took on a character of its own to accommodate the diverse languages and health care systems of Europe. Over 30 years, ESRA has done much to publicize the evidence on regional anesthesia and encourage its further development. It has also led the way in democratizing European anesthesia societies by being the first to open its membership to all. Educationally, activities grew from a single annual congress to include zonal and other meetings, cadaver workshops, a major online program, and collaborations (guidelines and conferences) with other societies. In the last few years, there have been 2 major developments: (1) a complete overhaul of the constitution to make the society truly democratic and transparent and (2) the introduction of diploma examinations, an entirely novel project.

The relationship with other regional anesthesia societies, particularly ASRA, is strong, with even greater scope for collaborative activities in the future. The main aim of ESRA is to promote the teaching and use of regional anesthesia techniques in surgery and pain management for improved patient outcome. The worldwide increase in the use of regional anesthesia during the last 30 years is encouraging, especially given the antagonism expressed in much of Europe previously because of concerns about neurological sequels. The society can be proud of its role in this progression, but past success does not guarantee future success. Societies including ESRA, no matter how vibrant, do not progress without continued input from members (especially younger ones) dedicated to its aims.

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REFERENCES

1. Mandabach MG, Wright AJ. The American Society of Regional Anesthesia: a concise history of the original group—its birth, growth and eventual dissolution. *Reg Anesth Pain Med.* 2006;31:53–65.
2. Winnie AP. Diary of a dream: the American Society of Regional Anesthesia (for surgery, obstetrics and pain control). *Reg Anesth Pain Med.* 2006;31:569–574.
3. News and Notices: Obstetric Anaesthetists Association. *Anaesthesia.* 1979;34:114–117.
4. Society of Regional Anaesthesia, Association Internationale. *Moniteur Belge.* 1980;2338–2339, N. 5110.
5. Bye-Laws: European Society of Regional Anaesthesia and Pain Therapy (ESRA). ESRA Web site. <http://esraeurope.org/assets/medias/2012/03/5b.new-byelaws-of-ESRA-september-2010-english-version1.pdf>. Accessed March 1, 2013.
6. Becker HK. Carl Koller and cocaine. *Psychoanal Q.* 1963;32:309–373.
7. ASRA News. American Society of Regional Anesthesia and Pain Medicine Web site. <http://www.asra.com/Newsletters/february-2011.pdf>. Accessed March 1, 2013.
8. Sites BD, Chan VW, Neal JM, et al. The American Society of Regional Anesthesia and Pain Medicine and the European Society of Regional Anaesthesia and Pain Therapy Joint Committee recommendations for education and training in ultrasound-guided regional anesthesia. *Reg Anesth Pain Med.* 2009;34:40–46.
9. <http://www.esraeurope.org/education/esra-academy/> and <http://www.whatsnew-esra.org>. Accessed March 1, 2013.
10. <http://www.postoppain.org>. Accessed March 1, 2013.