The global organization of nurses in anesthesia: The International Federation of Nurse Anesthetists

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Article history:
Received 29 November 2015
Received in revised form
3 March 2016
Accepted 9 March 2016

Keywords:
IFNA
Organization
Nurse anesthetist
Globalization

A B S T R A C T

World-wide, nurse anesthetists provide anesthesia care in many countries. Because of different historical background responsibilities, tasks and roles vary widely around the world. Established in 1989, the International Federation of Nurse Anesthetists (IFNA) is a global organization representing nurse anesthetists. Each member country is represented in the Council of National Representatives who elect their Board of Officers who manage IFNA on a day-to-day basis. Together with several committees, the IFNA is dedicated to the advancement of educational standards and practices that will advance the art and science of nurse anesthesia and thereby support and enhance quality anesthesia worldwide. The IFNA has relationships with numerous institutions that share the professional interest in nurse anesthesia: International Council of Nurses, World Health Organization, World Federation of Societies of Anesthesiologists (WFSA) and European Society of Anesthesiology. The IFNA- Standards, the Anesthesia Program Approval Process and the IFNA-world congresses are important tools used in the globalization process. Currently, the focus is on a framework and guidelines for Continuous Professional Development, recertification, accreditation and legislation. This is not only important for further development of the profession and the constant improvement of quality anesthesia care but also to become known to the general public.

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1. Introduction

Nurse Anesthetists (NAs) currently provide much of anesthesia care worldwide. Studies have illustrated NA administer or participate in administration of anesthesia services in 107 countries and in 70–80% of all cases administered in the world. Responsibilities, tasks and roles have differed widely across nurse anesthetists around the world [1]. National organization and international integration have been of critical importance in enhancing the growth and protection of the scope of practice for the specialty.

The International Federation of Nurse Anesthetists (IFNA) is a global organization representing nurse anesthetists. The nurse anesthetist has completed a program of basic nursing education and basic nurse anesthesia education and is qualified and authorized in his/her country to practice as a nurse anesthesia. IFNA is dedicated to the advancement of educational and practice standards which will advance the art and science of nurse anesthetist and thereby support and enhance quality patient care.

2. Historical overview

In order to understand the challenges nurse anesthetists (NAs) are facing today, it is essential to look back to the early days of anesthesia. Induction of anesthesia, traditionally, was performed by the surgeon while a nurse took over during maintenance of anesthesia. The surgeon was ultimately responsible for the entire operation, including the ‘anesthesia’.

NAs have been providing anesthesia care in the United States and in some European countries for nearly 150 years and were the first “nursing specialty group”. Society forces, gender, war, economy, education, certification and organization issues all had a powerful effect on the development of NAs as a nursing specialty.

World War II accelerated the specialization of medicine and gave great impetus to anesthesia as a medical specialty. Before the introduction of muscle relaxants, induction agents, potent inhalational agents, anesthesia-specific medications, anesthesia delivery systems and regional anesthesia modalities, anesthesiologists had to fight for their position in a predominantly surgical world and against a large general practitioner workforce. Nowadays, in the European Union anesthesia is recognized as a medical specialty and anesthesia nurse is always working under the supervision and responsibility of an anesthesiologist.

Generally, the development of nurse anesthetists worldwide occurred in four possible ways: a) as in the USA where NAs work independently or under supervision of a physician; b) as in France where nurses first worked under supervision of the physician and later under supervision of the anesthesiologist; c) as in the UK (and Commonwealth) where physicians were the sole administrators of anesthesia and were assisted by different types of assistants (incl. nurses) or d) as in Germany where nurses worked under supervision of the surgeon, then were completely replaced by anesthesiologists and later were reintroduced to assist the anesthesiologist [2,3].

3. International federation of nurse anesthetists

In 1978 two European NA, one from Switzerland and one from Denmark, attended the Annual Meeting of the American Association of Nurse Anesthetists. Their interest in international cooperation among NA planted the seed for what would become the International Federation of Nurse Anesthetists. Following symposiums held in Switzerland (1985) and the Netherlands (1988) interest increased for a formal international organization. In September 1988, the first organization meeting of the proposed international organization was held in Teufen, Switzerland. Sub-committees were formed to discuss structure, bylaws, membership, dues, functions, and objectives. In June 1989, country representatives met in Teufen, Switzerland, to finalize and adopt proposed bylaws and to review country applications. On June 10, 1989, 11 countries became charter members of IFNA [4].

They are: Austria, Germany, Finland, France, Iceland, Norway, Sweden, South Korea, Switzerland, United States and the former Yugoslavia. During their first meeting, 10th of June 1989, in Teufen (Switzerland) bylaws were accepted, officers were elected and the Swiss city of St. Gallen was chosen as IFNA headquarters [5]. Ongoing efforts in areas such as education, practice and ethical standards, and the accreditation of education programs create opportunities for IFNA-country members for further legalization and professionalization. This is not only important for further development of the profession but also to become known to the general public.

The IFNA world congresses are essential for the coherence, innovation and exchange between non-medical anesthesia professionals worldwide. In 1985, even before the official launch of the IFNA, an International Symposium for Nurse Anesthetists was held in Lucerne, Switzerland with a total of 282 participants from 11 different countries [4]. In 2016 the eleventh IFNA congress will be held in Glasgow, UK (Table 1).

3.1. Mission & vision

The Federation is dedicated to the precept that its members are committed to the advancement of educational standards and practices that will advance the art and science of nurse anesthesia and thereby support and enhance quality anesthesia.
worldwide. The IFNA establishes and maintains effective cooperation with institutions that have a professional interest in nurse anesthesia.

IFNA is an affiliate member of the International Council of Nurses (in 2011, IFNA was the second of only 7 international nursing specialties to be recognized by the ICN), has an informal relationship with the World Health Organization (WHO) and a liaison with the World Federation of Societies of Anesthesiologists (WFSA) and European Society of Anesthesiology. IFNA is an anesthesia representative in the WHO Global Initiative for Essential and Emergency Surgical Care (WHO GIEESC) meetings and a member of the Centre for Quality Assurance in International Education (CQAIE), the International Hospital Federation (IHF) and the International Society for Quality in Health Care (ISQua).

The IFNA encourages national nurse anesthetist organizations to develop informal and/or formal relationships with related health care professional organizations. The IFNA participates in the formulation and implementation of healthcare policy and the recognition of nurse anesthetists as essential and cost-effective healthcare providers.

3.2. IFNA objectives

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<th>IFNA objectives</th>
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<td>1. Promote cooperation between nurse anesthetists internationally.</td>
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<td>2. Develop and promote educational standards in the field of nurse anesthesia.</td>
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<td>3. Recognize eligible anesthesia education programs through IFNA’s Anesthesia Program Approval Process (APAP).</td>
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<td>4. Develop and promote standards of practice in the field of nurse anesthesia.</td>
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<td>5. Provide opportunities for continuing education in anesthesia.</td>
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<td>6. Assist nurse anesthetists’ associations to improve the standards of nurse anesthesia and the competence of nurse anesthetists.</td>
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<td>7. Promote the recognition of nurse anesthetists.</td>
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<td>8. Encourage research related to the profession of nurse anesthetists and promotion of patient safety.</td>
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<td>9. Establish and maintain effective cooperation between nurse anesthetists, anesthesiologists and other members of the medical profession, the nursing profession, hospitals, and agencies representing the community of interest in nurse anesthesia.</td>
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4. Organization of IFNA

The International Federation of Nurse Anesthetists (IFNA) is an international organization representing nurse anesthetists serving the public and its members. A member country (Table 2) appoints their official representative who is the voice for the country to the IFNA and responsible for reporting IFNA activities within their respective country. The national organizations implement IFNA Standards in their own countries and are the local advisory bodies for governments, unions and NAs. The national nurse anesthesia organizations are active in organizing national conferences, promoting and monitoring professional development, recertification, accreditation, etc. Representatives of all member countries are part of the IFNA Council of National Representatives (CNR) and meet every 2 years. The CNRs also elect the members of the Executive Committee and the Board of Officers every 2 years (Fig. 1).

Executive Committee has financial control and promotes PR activities. The Board of Officers consist of IFNA’s President, Vice-president, 2nd Vice-President and Treasurer and are part of the Executive Committee but are also responsible for, in collaborating with the Executive Director (an employee of the IFNA), managing the affairs of the IFNA on a day to day basis.

4.1. Membership

A country’s national nurse anesthetist association/federation (or separate nurse anesthetist section/chapter of a national health association) may become a member of the IFNA.

The IFNA defines a nurse anesthetist as: “A person who has completed a program of basic nursing education and basic nurse anesthesia education and is qualified and authorized in his/her country to practice nurse anesthesia”. The name nurse anesthetist varies from country to country and the IFNA recognizes other titles such as: anesthesia nurse, nurse specialist in anesthesia, advanced practice nursing in anesthesia, etc.

The IFNA recognizes that not all non-medical anesthesia providers meet the nurse anesthetist definition although they can practice anesthesia in much the same manner as the nurse anesthetist. These associations can become an Associate Member of IFNA and participate at biannually meetings of the IFNA Council of National Representatives (CNR) as an observer with the right to speak but with no voting privileges.

The annual dues for each member country is based on the number of active members of the national association. The dues are ranked in 3 categories based on the World Bank income classification: high income countries (CHF 3.00 per active member), upper middle income countries (CHF 1.25 per active member) and low & lower middle income countries (CHF 0.75 per active member). Associate membership dues are one-half (1/2) of regular membership dues.

4.2. Committees

Committees are the backbone of any organization. It is through committee activity that projects are developed, planning is
accomplished and research is promoted (Fig. 1).

The Congress Planning Committee (CPC) consists of the past, current and future Congress chairperson, all officers and the Executive Director, and is responsible for planning, organizing, implementing and evaluating the biennial IFNA World Congress. In doing so, they collaborate and assist the National Organizing Committee with the decisions and preparations for the congress.

The Education Committee (EC) evaluates and makes recommendations on issues related to basic education of nurse anesthetists and approval of anesthesia education programs. The committee is responsible for the preparation and revisions of the IFNA Educational Standards, maintaining and administering the Approval Process for Anesthesia Programs (APAP) and involved in related projects and publications. The committee is also responsible for the “Teachers Session” of the World Congress and the guidelines for Starting a New Program and Model Curriculum. Members of the EC are appointed by the President with the approval of the CNR.

The Practice Committee (PC) is responsible for the policies, regulations, Practice Standards and education after the NA obtained her/his initial diploma as a NA. They provide a model and effective strategies for continuing professional development, international exchange of workforce and the scope of practice of nurse anesthetists and other non-physician anesthesia providers in member and non-member countries. Members of the PC are appointed by the President with the approval of the CNR.

The IFNA Bylaws Committee is responsible for reviewing and preparing proposals for amendments to the IFNA Bylaws. Proposals for amendments to the bylaws may be offered by member associations and the CNR, Executive Committee and the Board of Officers. The Bylaws Committee is appointed by the President and CNR on an Ad Hoc basis.

5. Recent developments

Today IFNA represents 40 countries worldwide. The Standards, the Anesthesia Program Approval Process (APAP) and the IFNA-world congresses are important instruments to help member and non-member countries to develop, professionalize further and in obtaining official national recognition. Recent examples are South Korea and Finland.

Since 2013, South Korea has two official training programs for NAs and they completely adopted the IFNA Standards.

Until recently, there were no nurse anesthetists in Japan. In 2010, a first, important step was taken by starting an exchange education program based on IFNA’s Standards [6].

In Rwanda, a national NA has been established recently and is still in progress. Their biggest issue is to get national recognition and integrate everyone from previous cohorts of non-physician anesthetists. This is no easy task as different institutions (Nursing Council, Rwandan Association of Anesthetists for non-physicians and Rwanda Society of Anesthesiologists) have different views on it. Membership of the IFNA can be very helpful in this effort by offering guideline and exchange of information and practical issues.

In Cambodia they are rewriting the anesthesia course curriculum into a bachelor level and need professional help in succeeding. The IFNA offers this help by providing expert advice and using the guidelines provided in the APAP manuals.

The Spanish Ministry only recognizes the existence of 2 specialty nursing roles (mental health and obstetrics) and for twelve years now the Spanish national society of NA are working hard for the recognition of their own specialty. The IFNA Standards are used to underpin and stress the importance of this.

In Indonesia, its only formalized nurse anesthesia educational program was closed for a few years. In 2014, the IFNA assisted with the formalization of education and adoption of IFNA-standards, resulting in the opening of five schools using the IFNA-bachelors level education curriculum.

6. Current issues

Now that the voluntary approval of nurse anesthesia educational program is in place, attention is focused on developing a framework and guidelines for Continuous Professional Development (CPD), recertification, accreditation and legislation after initial certification as NAs.

In 2014, the CNR of South-Korea, Japan, Taiwan and the USA attended the American Association of Nurse Anesthetists Annual Meeting and discussed the development of nurse anesthesia in the Asian countries. A barrier for further development of the profession in some countries is due to substantial travel costs (long distances.

Table 3

<table>
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<tr>
<th>Approved nurse anesthesia programs.</th>
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<tr>
<td><strong>Registration</strong></td>
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<tr>
<td>- Pangkalpinang, Indonesia</td>
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<tr>
<td><strong>Recognition</strong></td>
</tr>
<tr>
<td>- University of Alabama, Birmingham, USA</td>
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<tr>
<td>- University of Tennessee Health Science Centre, Memphis, USA</td>
</tr>
<tr>
<td>- University of Iceland, Reykjavik, Iceland</td>
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<tr>
<td>- University Medical Centre Groningen, Groningen, Netherlands</td>
</tr>
<tr>
<td>- Lund University, Lund, Sweden</td>
</tr>
<tr>
<td>- Fontys University of Applied Sciences, Eindhoven, The Netherlands</td>
</tr>
<tr>
<td>- Ulnec Amstel Academie, Amsterdam, The Netherlands</td>
</tr>
<tr>
<td>- The Sahlgrenska Academy University of Gothenburg, Gothenburg, Sweden</td>
</tr>
<tr>
<td>- Bayang Dupay, Lucena City, Quezon, Philippines</td>
</tr>
<tr>
<td>- Ecole Superieure des Sciences et Techniques de la Santé de Tunis, Tunis, Tunisia</td>
</tr>
<tr>
<td>- Mount Marty College, Sioux Falls, South Dakota, USA</td>
</tr>
<tr>
<td>- Western Carolina University, Asheville, USA</td>
</tr>
<tr>
<td>- Shanghai Jiaotong University School of Medicine, Shanghai, China</td>
</tr>
<tr>
<td><strong>Accreditation</strong></td>
</tr>
<tr>
<td>- École d’Infirmiers Anesthésistes, Hospital Salpetriere, Paris, France</td>
</tr>
<tr>
<td>- Wake Forest Baptist Medical Centre, Winston-Salem, USA</td>
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<tr>
<td>- University Hospital Basel, Basel, Switzerland</td>
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<tr>
<td>- National University Hospital of Iceland, Reykjavik, Iceland</td>
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<tr>
<td>- Goldfarb School of Nursing at Barnes-Jewish College, St. Louis, Missouri, USA</td>
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<tr>
<td>- Aargauische Fachschule fuer Anesthese- Intensiv- und Notfallpflege, Aarau, Switzerland</td>
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<td>- Copenhagen University Hospital, Copenhagen, Denmark</td>
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Fig. 1.
7. **IFNA standards**

In 1997, IFNA was the only international nursing organization to establish international standards and with the adoption of these standards, globalization of the profession took a major step forward. Adopting common standards across borders and regions defines the profession of nurse anesthesia in ways that protect regulation and modes of practice but also provide the people of the world the best in anesthesia care [4].

Establishing standards is essential in globalizing practice and they are developed and subscribed to by all members based upon the profession’s philosophy, theory, science, principle, and research [7]. Standards provide a means to evaluate the practice and provide the practitioner with a level of achievement and a framework within which to operate.

While nurse anesthetists’ services are utilized in many countries throughout the world, anesthesia practice may vary from one country to another or from one geographic location to another within a country because of requirements or limitations imposed by local law or institutional characteristics. Additionally, the practice of the nurse anesthetist is governed by policies, rules, and regulations as established by the health care institution from which the anesthesia care is being provided.

In 1990, IFNA developed its first set of standards and were endorsed by the International Council of Nurses (ICN) in 2002. The first Code of Ethics was written in 1992. The purpose of IFNAs’ Standards and Code of Ethics is to acknowledge the profession’s acceptance of the responsibility and trust conferred upon it by society and to recognize the international obligation inherent in that trust. The Standards promote attainment of three goals: a) provide a common base for nurse anesthetists to coordinate care and unify efforts in the development of quality of practice internationally; b) assist the professional in evaluating the quality of care provided; and c) assist employers to understand what to expect from the nurse anesthetist.

Currently, the Standards and Code of Ethics are undergoing their first major revision and are rewritten in an outcome/competency-based approach. To accommodate the requirements of nurse anesthetists in complex teams and complex healthcare systems, IFNA has adopted and adapted the CanMEDS role model as the conceptual framework on which to base its standards and code of ethics [8].

7.1. Monitoring standards

Patients have the right to expect to be safe and protected from harm during their medical care, and anesthesia has a key role to play in improving patient safety perioperatively. The funders of healthcare are entitled to expect that perioperative anesthesia care will be delivered safely; therefore, they must provide appropriate resources. The monitoring standards will assist the nurse anesthetist in providing consistent and safe anesthesia care. The standards apply to all patients undergoing general, regional, or monitored anesthesia care. If there are reasons to omit a monitored parameter, the reason for the omission should be documented on the anesthetic record.

The monitoring standards cover the following domains: facilities, equipment & medications, personnel, pre-anesthesia checks, records & statistics, airway & ventilation, oxygenation, circulation, body temperature, neuromuscular function, depth of anesthesia, clinical assessment & vigilance, positioning and pain relief in the pre-operative, perioperative as well as in the postoperative phase.

7.2. Practice standards

For every CanMEDS role of the NA, domains and graduate competencies are described. The key role of the Nurse Anesthesia Expert integrates all of these CanMEDS roles. The role requires applying medical and nursing knowledge and clinical, technical, and non-technical skills. Nurse anesthetists are involved in pre-operative, intraoperative, and postoperative anesthesia care. NAs work in close collaboration with physician anesthetists, surgeons and other healthcare professionals in the perioperative domain and recognize and take appropriate action when patient safety requires it or if the event exceeds their scope of practice.

7.3. Educational standards

Nurse anesthetists are educated as clinical nurse specialists in many countries throughout the world to provide or participate in the provision of services to patients requiring anesthesia, respiratory care, cardiopulmonary resuscitation, and/or other emergency life-sustaining services [9]. The education standards are based on the international standards for safe practice in anesthesia [10]. Domains described in the Education Standards are: prerequisites for applicants of NA-programs, selection process of the educational program, curriculum, graduate competencies, location (university) & clinical resources for clinical practicum, length of the program, faculty requirements, and regular evaluations of the student’s academic and clinical progress and graduation as qualified nurse anesthetists.

7.4. Code of ethics

The purpose of a code of ethics is to acknowledge a profession’s acceptance of the responsibility and trust conferred upon it by society and to recognize the obligations inherent in that trust. The IFNA Code of Ethics originates from the premise that as healthcare professionals, nurse anesthetists must strive, both on an individual and collective basis, to pursue the highest possible ethical standards.

8. Anesthesia Program Approval Process (APAP)

The IFNA believes that it is possible to improve the health and welfare of humanity by promoting international educational standards for non-physician anesthesia programs. In 2010, IFNA started the Anesthesia Program Approval Process [11]. The goal of the approval process is to encourage programs to comply with IFNA’s Educational Standards through an approval process that takes cultural, national or regional differences into consideration. The approval process promotes the sharing of information and experiences among anesthesia educators throughout the world. Importantly, it adds value to an educational program by providing recognition of the faculty’s efforts to meet quality standards.

There are 3 levels of program approval: level 1, IFNA Registration which does not require an audit (no costs involved); Level 2: IFNA Recognition requires an audit of the curriculum to see how well it meets IFNA’s Education Standards on curriculum (no costs involved). Registration and recognition are awarded to nurse anesthesia programs and programs with students who are nurses as well as students who are non-nurses. Using different levels for program approval, level 1 and 2 programs are encouraged to move toward the goal of meeting all IFNA standards over time. Level 3 IFNA Accreditation involves a self-study written by the program and an on-site visit by IFNA representatives. Accreditation can only be awarded to nurse anesthesia programs (Table 3).
9. Conclusion

In thirty years’ time, IFNA has evolved into a federation of national anesthesia organizations with members located in 40 different countries. Major achievements have included developing, adopting and implementing a code of ethics, standards of practice, monitoring and education plus the international Anesthesia Program Approval Process. Ongoing efforts to foster quality anesthesia care have impacted practice, education, legislation and recognition of the profession in many countries. Importantly, IFNA’s accomplishments are aimed at further increasing the availability of anesthesia care to the world’s population.

References


