

# Convergence Process: Certification and Recertification of Medical Specialists in the United States and Mexico

Miguel Angel Fernández Ortega<sup>1</sup>, Alan Edward Barrell<sup>2</sup>, Maximiliano Cuevas<sup>3</sup>

1. Full-time Professor, School of Medicine, National Autonomous University of Mexico (UNAM), 2. Administrative & Medical Affairs Manager, College of Internal Medicine of Mexico AC, 3. Executive Director, Clinics Salinas Valley, California USA

Nowadays, most Western countries have developed mechanisms of accreditation and certification of their health and educational institutions, as well as for medical professionals. It is noteworthy that despite the differences in health and education systems between the countries of United States and Mexico, in many cases you can see similar or convergent processes, as in the Certification and Recertification processes of Specialists in Medicine.

## Background

At all times, society has been concerned about creating mechanisms that will allow the quality assurance in the provision of medical services; even before Christ (XVIII century B.C.), the Hammurabi Code in Babylon became a keystone of this kind of process. Back then the king created a code with 10 short principles and 282 rules governing the exercise of Medicine<sup>1</sup>.

In Mexico, from 1527 to 1831, the Protomedicato was appointed for the so called New Spain territory. This reviewing body was entitled to exam and authorize those who wanted to practice medicine.

When this body disappeared its functions and powers were replaced by a new evaluation body by the name of the Mexico City Medical Faculty, whose functions included: certification exams of doctors, surgeons and pharmacists, as well as organizing the basic code of Healthcare & Sanitary Laws<sup>1,2</sup>.

By the year 1840 the founded Superior Health Council became responsible for issuing the medical degree to those who aspired to practice Medicine; the process included two steps: 1) The academic part reviewed by supported by the existing educational institutions, and 2) the professional one followed by the state<sup>2</sup>.

Also and as the result of advances seen in the development of medical specialties that were introduced in other countries, the first medical specialty pavilions of Cardiology, Urology and Gastroenterology were created at the General Hospital of Mexico in 1924.

In 1945 the General Directorate of Professions was created, and ruled the obligation of doctors to have an Official Academic Medical Degree and a government issued License Card to practice, these mandatory requirements stand until today<sup>2</sup>. During 1963, the first Mexican Council of Anatomic-Pathologists was formed, and by 1974 there were more than 16 Specialty Councils in the country, which later grew to 43 of them in 1993.

On February 15<sup>th</sup> 1995 the National Academy of Medicine ( ANM ), the Mexican Academy of Surgery ( AMC ) and the Assembly of Councils of Medical Specialties , formed the National Standards Committee of Medical Specialties Councils ( CONACEM ), integrating four members of each of the three main organizations mentioned above. It is also important to state that the first two of them, have advisory functions to the federal government.

CONACEM works as an " *Official Assistant to the Federal Public Administration, providing a detailed monitor, supervision and assessment to the training programs and skills development for the qualification of medical specialties as well as the Certification and Recertification processes of various medical specialties recognized by the Committee and the Health Institutions officially recognized by the formal authorities* "<sup>1,6</sup> .

In the United States, by the end of the nineteenth century the in first Expert Societies were formed so the sharing of knowledge and opinions could be established widely including the areas of Psychiatry, Ophthalmology, Otolaryngology and Laryngology.

With the organization achieved in 1917 the first Certification Board was formed on behalf of the Ophthalmology specialty (American Board of Ophthalmology), so the aspirational candidates could undergo evaluation exercises<sup>1</sup>.

In 1933, the American Board Medical Specialties (ABMS) is created, based on the initiative of representatives from the specialty boards of Dermatology, Gynecology and Obstetrics, Otolaryngology and Ophthalmology, as well by managers of medical and educational institutions. They met to analyze the processes of training and certification of Medical Specialists. Together they conceived and set the grounds for a national system with unified standards on behalf the recognition of specialists and providing this information to the public<sup>3,4,5</sup>.

### **Rectory and Institutionalization processes: Certification and its sustainment endurance (Recertification)**

Both countries, the United States and Mexico have two official leading national umbrella organizations, with political and moral support from the different institutions of the educational system as well as the health area: ABMS for the US procedures and CONACEM for the Mexican ones.

Both entities, of civil grounds, have the enormous responsibility to establish a uniform evaluation system which entitle Medical Specialty Councils and Boards to administer high degree peer reviewed developed tests.

Each organization is constantly renewed, not only in their structure but also in its operation principles, in order to monitor each of their affiliate Councils and Board members so they can perform their certification and recertification functions with the highest standards of quality and transparency.

This continuous process requires fine detail as you may expect, and as an example we can share that CONACEM evaluates and awards the Suitability and Formality of the Certification and Recertification processes of each appointed Specialty Council, every 5 years. If such accreditation is not reached accordingly, the council loses its' CONACEM recognition and can be dismissed.

### **The Councils or Boards of Medical Specialties**

The Council or Boards of Medical Specialties or the American Board of Specialties entities, " are civil associations created by the specialists themselves, to regulate their performance, based on the requirements of training and preparation in each field of medical science, and the competency demonstration in certification exams" <sup>1,3,4</sup>.

Also, the Councils or Boards are academic bodies, independent in its organization and procedures, elected by the recognition of the career of each of its members and committed to society in general, in the case of Mexico a non-profit organization.

As a basic need and result of scientific and technological advances which happen in the medical sciences , and in the epidemiological and demographic transformation of all societies, Medical Specialists are required to constantly renew their knowledge and therefore demonstrate the validity of professional knowledge and capabilities through recertification, which stands as the competitiveness of their own certification.

### **Understanding the Certification and Recertification (renewal of the Certificate)**

Certification in Latin America has different meanings. For some countries like in Colombia, Peru and Venezuela, it is the level obtained at the conclusion of the medical training and through the reception of a diploma issued by the training institution. In other cases, as in Spain, and now happening in Brazil and Argentina, the certification process is the wording used for the validation of activities and clinical practice education, in order to recognize a general practitioner and a specialist in Family Medicine without completed a medical residency <sup>7</sup>.

In Mexico, as in the United States and Canada, the certification is more a postgraduate evaluation system, done once or twice a year on a regular basis, according to the Council / Board, and is understood as an accreditation by the pairs (training specialists similar to the evaluated prestigious academic, clinical and research at the national level ), to measure the professional skills of the subject in the exercise of specialty, regardless of the training institution or job placement.

Certification is a validation process that guarantees to the population that the doctor treating them, has the proven capacity to attend their health needs. Certification is also a quality standard that all physicians should possess, however, in Mexico and the United States it is achieved on a voluntary basis, allowing many physicians to practice medicine without having this professional recognition.

**Table 1. Requirements for Certification in Mexico and the United States**

REQUIREMENTS	MEXICO	UNITED STATES
<b>University Studies in Medicine</b>	6 a 7 Years	8 Years*
<b>Approval of a National Exam prior to the Specialty Residency program</b>	National Examination for Medical Residence candidates	National Board of Medical Examiners (NBME an associate member of the ABMS)
<b>Medical Residency</b>	3- 5 Years	3 – 5 Years**
<b>Specialist University Degree</b>	Yes	Yes
<b>License to Practice Medicine</b>	Yes	Yes
<b>Approval of the Specialty Council Exam</b>	Yes	Yes

*\* In the United States they include four years of premedical studies and four years of medical career*

*\*\* May vary according to the chosen Medical Specialty*

Although the mentioned voluntary status of certification in both countries, there are generated indirect pressure conditions for physicians to become certified.

In the case of Mexico, many clinics and hospitals have compulsorily requested certification in order to work or hospitalize patients. Similarly, many universities such as the National Autonomous University of Mexico (UNAM ), asks its teachers be certified to be hired and promoted in each grade level. For many health institutions, certification is necessary to assume leadership positions.

Certification and Recertification of Medical units under Quality Assurance Criteria, specifies that it is essential to have a certain percentage of certified physicians. Even in legal cases the certification status can be a mitigating or agravating factor.

For the United States most of the mentioned remarks are true, as many health institutions require their doctors be certified to practice medicine and to be suitable for legal insurance protection, this accreditation is indispensable.

The requirements for certification in both countries are being specialist graduate medical residency program from 3 to 7 years (by selected specialty) beyond this, in the United States the residency program must be recognized and accredited by the Accreditation Council for Graduate Medical Education (ACGME, another associate member of ABMS); have specialist degree issued by a recognized university and the payment of the examination fees.

In the case of Mexico it is allowed for residents in the last year to attend the Certification exam, as long as they provide a proposal-letter from their Residency Professor –In-Chief to the Specialty Council, where it is stated that the resident is a regular student of the last year of postgraduate training. If the test is approved, then the Specialty Council will give the Resident a Letter of Accreditation which will after be exchanged for the corresponding Certificate, once the student has graduated from the residence program and received the formal Specialist Degree.

Since 2011, according the General Health Law, in the 81<sup>st</sup> Article mentions, "*...for the issuance of a Professional Specialty License Card (license to practice), the issuing authorities of the Ministry of Education, will require the opinion of CONACEM ( to clarify the candidates certificate condition), so that if residents are not certified in the past, they may not practice as specialists by not having this required document<sup>1</sup>.*

As for the maintenance of Certification status or the Recertification, both countries share many of the procedures and requirements.

In the case of Mexico, it is conducted every 5 years for all specialties. For the United States, depends on each specialty and ranges from 3 to 10 years, the average is 7 years (Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, General Surgery, etc.).

In both countries the evaluation is done through the response to clinical cases, either in a written format (printed or digital) or in oral presentation, including general knowledge of the specialty, its diagnostic and therapeutic capacities, professionalism, analytical skills, etc. Some specialties in the case of Mexico, use simulators or standardized patients or even family health studies. It is also important to note that for the Recertification validating process, both countries require continuing education activities, such as courses, conferences, symposia, etc. However, in the case of Mexico many specialties do not give

value to the activities promoted by the pharmaceutical industry as they considered that the information may be biased by economic interests.

United States requires 25 to 50 Hrs. of continuing education per year ( continuing education programs must be recognized by the Accreditation Council for Continuing Medical Education, ACCME , associate member of ABMS ); and in Mexico, it will depend on each specialty board, for instance the Mexican Board Certification in Family Medicine requires a minimum of 400 Hrs. in the 5 years period to be evaluated. In addition to these activities, in Mexico score for recertification is given to the teaching activities in undergraduate and graduate; research, publications, participation in clinical monitoring committees or academic and research; prizes and distinctions, etc.<sup>3,4,7</sup>

**Table 2. Requirements to maintain further certification status (recertification)**

REQUIREMENTS	MEXICO	ESTADOS UNIDOS
Previous Certificate Approved Status	Yes	Yes
Certification Term	Every 5 years in all Specialties	Every 6 Years (FM, IM, P, ObGyn)
Evaluation Pathways	<p><b>1. Exam</b>            .Clinical cases review and response in written/electronic formats and oral presentations, standardized patients, simulations.            . Family Health Studies</p> <p><b>2. Curriculum Assessment includes:</b>            -Activities Of Continuing Medical Education (Total number of hours will vary in each Council at MF are 400 hrs In 5 years)            - Clinical Activities            - Undergraduate and / or Postgraduate Teaching activities            - Research and Publications involvement            -Training In masters and doctorates            -Awards and distinctions            Participation in Specialty Councils or Boards as well as Medical Colleges</p>	<p><b>1.Exam and Curricular Assessment</b></p> <p><b>2.Continuous Medial Education</b>            - 25 to 50 hours per year</p>
Degree	Specific Term Certificate	Specific Term Certificate

When we analyze the validation processes and reliability of certification exams and approval standards, CONACEM has worked intensively on the establishment of approval and evaluation processes of certification exams of all specialties.

Currently all Councils have questions linked to tested and validated data banks, which are also classified according to the difficulty degree of each clinical case.

A common practice in all certification exams is that they are different versions, with an average proportion of 90% of tested reagents and 10% of new reagents, which will be tested and validated in each test and thus "feeding" the question bank. After each assessment, the Council, through its Review Board, proceed to perform the psychometric analysis in order to identify questions that do not discriminate (distinguish) the expected level of knowledge of the examinees "know who do not know" even eliminate the poorly structured or deficient ones, and thus obtain reliability and validity of the test, which will establish the list of certified and non-certified physicians.

Most of the councils have trained staff for the exam preparations, their statistical analysis the validity and reliability processes, however, CONACEM allows Councils to work on this with universities and or the National Center for Evaluation Higher Education (CENEVAL) .

Finally, the final grade is issued by the Specialty Council Maximum Authority only as a Certificate or Certificate not condition, and the feedback from their evaluation is presented by knowledge areas and given to each of the applicants.

**Table 3. Convergence Process: Medical Specialty Certification and Recertification in Mexico and the United States**

FEATURES	MEXICO	UNITED STATES
<b>Lead Organization with official legitimacy and representativeness</b>	CONACEM	ABMS
<b>National Coverage</b>	Yes	Yes
<b>Profit Nature of the Leading Organization</b>	No	No
<b>Adequacy Recognition</b>	Only one Certification Council per Medical Specialty	Only one Certification Council per Medical Specialty
<b>Specialists National Organizations Members of the Evaluation Bodies</b>	47 High Degree Medical Councils which acknowledge 84 Specialties and their Subspecialties	24 Medical Specialty Boards which acknowledge 150 Specialties and their Subspecialties
<b>Exam Developers</b>	Same Specialty peers	Same Specialty peers

<b>Obligatoriness</b>	Volunteer	Volunteer
<b>Certification Direct Benefits</b>	.Medical Update Quality Standard recognition .Mandatory requirement to work in many public and private institutions .Mandatory requirement for major teaching institutions (UNAM) .Mandatory requirement for institutional internal promotions .Mal Praxis legal positive reference	. Medical Update Quality Standard recognition . Mandatory requirement to work in some institutions .Mandatory requirement for medical-legal insurances
<b>Certification Term</b>	5 Years (FM,IM, OG, P, GS)*	6 Years (FM,IM, OG, P, GS)*
<b>Accreditation Standards</b>	Set by each of the Specialty Councils in accordance to validated and recognized processes	Set by each of the Specialty Councils in accordance to validated and recognized processes
<b>Type of Rating</b>	Certified or Certified Not	Certified or Certified Not

*\*Family Medicine, Internal Medicine, Obstetrics & Gynecology, Pediatrics and General Surgery*

## Conclusions

It is noticeable that the processes for developing and applying certifications and recertification between the evaluation bodies of ABMS in the United States and CONACEM in Mexico as with their respective Councils / Boards of specialists have more points of convergence than divergence.

Just like with the healthcare models, the professional profiles of Medical Specialists, will follow each country guidelines according to their demographic, epidemiological, political and economic needs and characteristics. However, we must emphasize that despite the apparent differences that both countries may have in training and certification, our processes and quality standards are very similar, perhaps more likely than what we considered in this part of the world.



## Bibliography

1. Espinoza de los Reyes VM. Participación de la Academia Nacional de Medicina de México en la acreditación de las especialidades y la certificación de médicos especialistas. Gac Méd Méx. 2014; Vol.150:227-34
2. Espinoza de los Reyes VM. La Evolución y el estado actual de la certificación de los especialistas en México. Gac Méd Méx. 1995; Vol 131 (1):72-82
3. [http:// www.abms.org](http://www.abms.org)
4. Board Certification Report ABMS [en línea]. Estados Unidos. [Fecha de acceso 03 de mayo de 2016] Disponible en: [http://www.abms.org/media/84770/2013\\_2014\\_abmscertreport.pdf](http://www.abms.org/media/84770/2013_2014_abmscertreport.pdf).
5. Rivera RA. Certificación y acreditación en el ámbito médico estadounidense. Panacea@ [en línea] 2008 [fecha de acceso 01 de mayo de 2016]; Vol. IX(28). URL disponible en: [http://www.tremedica.org/panacea/IndiceGeneral/n28\\_tradyterm-rivera.pdf](http://www.tremedica.org/panacea/IndiceGeneral/n28_tradyterm-rivera.pdf)
6. Decreto por el que se reforman los artículos 81, 83,271 y se adiciona el artículo 272 Bis 1, 272 Bis 2 y 272 Bis 3 de la Ley General de Salud.(Diario oficial, miércoles 25 de marzo de 2015).
7. Fernández Ortega MA, Yañez Puig EJ. La certificación y recertificación médica en México. Atención Familiar [en línea] 2004 [fecha de acceso 03 de mayo de 2016]; Vol. 11(6). URL disponible en: <http://www.facmed.unam.mx/deptos/familiar/atfm116/editorial.html>
8. <https://consejomedfam.org.mx/recertificación>