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SPECIAL ARTICLE

Career options for forensic and legal medicine specialists: A multidisciplinary approach



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Abstract In this article, we analyse the future job opportunities for the specialty of legal and forensic medicine. With the integration of the specialty into the MIR training system and with a new teaching programme, the aim is for the new specialist in legal and forensic medicine to have a high level of training and to prepare highly qualified doctors to work in the field of the specialty of legal and forensic medicine. The main objective of this training is that the specialists acquire knowledge and skills to investigate and evaluate from a medical–scientific point of view the cases related to justice, such as injuries, medico-legal investigation of death, causes of death, crimes against sexual freedom, and forensic psychiatry, among others. Furthermore, the specialists can integrate into the university world, making academic career (university professors), in addition to integration in other areas as described in the article.

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PALABRAS CLAVE

Especialidad de Medicina Legal y Forense;

Opciones profesionales para especialistas en medicina legal y forense: un enfoque multidisciplinar

Resumen En este artículo analizamos las futuras salidas laborales de la especialidad de Medicina Legal y Forense. Con la integración de la especialidad al sistema de formación MIR y

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Opciones profesionales;
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con un nuevo programa docente, se pretende que el nuevo especialista en medicina legal y forense tenga un nivel formativo y busca preparar médicos altamente cualificados para desempeñarse en el campo de la especialidad en medicina legal y forense. El objetivo principal de esta formación es que los especialistas adquieran conocimientos y habilidades para investigar y evaluar desde un punto de vista médico-científico los casos relacionados con la justicia, tales como lesiones, investigación médico legal de la muerte, causas de muerte, delitos contra la libertad sexual y psiquiatría forense, entre otros, además que los especialistas pueden integrarse en el mundo universitario, realizando carrera académica (profesores universitarios), además de la integración en otros ámbitos como se exponen en el artículo.

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Introduction

The legal and forensic medicine (MLYF for its initials in Spanish) specialty in Spain has a long history, including many ups and downs and was at one point even on the verge of disappearing. Historically speaking, in Spain, the specialty began thanks to the initiative of Dr. Pedro Mata y Fontanet, who in 1843 was the author of the reform of the training programme for the teaching of medicine and created the first chair of legal medicine attached to the Complutense University of Madrid. Later, during the reign of Isabel II, the Health Law of 1855 was enacted in Spain. This was one of the first laws to regulate and improve public health. This law also included the creation of the figure of forensic physician, as a doctor linked to the justice system, thus laying the foundations for the creation of the National Corps of Forensic Physicians in 1862.¹ Regarding the specialty's historical and regulatory evolution, the law of July 20, 1955 on "Teaching, qualification, and practice of medical specialties" stands out for its contents on qualifying as a specialist doctor. Another regulation was the promulgation of Royal Decree 127/1984, of January 11, which regulates specialised medical training and the obtaining of the title of specialist doctor, differentiating 3 groups of specialties: those that basically required hospital training, those that did not basically require hospital training (family and community medicine, preventive medicine and public health) and those that did not require hospital training, such as legal and forensic medicine.² Between 1984 and 2004, medical schools were responsible for the specialty. Following various legislative amendments in the field of specialised training and also in the field of the judiciary legislation in reference to forensic physicians, Royal Decree 296/1996 was enacted, approving the Organic Regulations of the National Corps of Forensic Physicians (CNMF for its initials in Spanish) and also Royal Decree 386/1996, approving the regulations of the Legal Medicine Institutes (recently repealed with the promulgation of Royal Decree 144/2023, of February 28, which establishes the new regulations of the Legal Medicine and Forensic Sciences Institutes (IMLCF for its initials in Spanish) in Spain,³ updating the previous regulations to adapt to changes in justice administration, social, and forensic sciences). The purpose of both regulations was to regulate and structure the functions and organisation of the forensic physicians attached to the Legal Medicine Institutes. The Ministry of Justice also wished to adapt to the

specialty situation and to the new regulations regarding forensic medicine and introduced modifications in Book VI in the Organic Law of the Judiciary (LOPJ) 7/2015, of July 21, which modified the LOPJ 6/1985 of July 1. Among them is the requirement for specialisation in legal and forensic medicine for entry to the CNMF, which will become effective when determined by the Ministry of Justice, once the first year students that have obtained a place through the residency system have completed their training, through the corresponding annual selective tests for places in specialised training.⁴ The publication of Royal Decree 704/2020, of July 28, determined access to the title of specialist physician in legal and forensic medicine through the residency system. According to this Royal Decree, the MLYF specialty has a duration of 4 years, with in-training periods in hospital clinical services and in the different teaching units of the various accredited centres of the Legal Medicine and Forensic Science Institutes.⁵ The new regulations adapt to the guidelines set by the European Council of Legal Medicine, published in 2011. This document establishes the objectives and standards for the training of specialists in legal and forensic medicine in Europe.⁶ Subsequently, Order PCM/997/2022, of October 18, was promulgated, approving and publishing the training programme for the legal and forensic medicine specialty.⁷

Legal and forensic medicine specialty professional opportunities

Future employment prospects are favourable for legal and forensic medicine specialists, due to the growing demand for specialist medical professionals. There are a number of factors involved here, including demographic factors, the large number of upcoming retirements of professionals in the field of the National Corps of Forensic Physicians and in the university academic field (legal and forensic medicine areas). Also, new jobs outside the field of forensic medicine and academia, which we will list below, are worthy of consideration.

Admission to the National Corps of Forensic Physicians

Royal Decree 1451/2005, of December 7, approves the Regulations on Admission, Provision of Jobs and Professional

Promotion of Civil Servants in the Justice Administration System.⁸ Admission to the CNMF in Spain entails a selective process by open competition or competitive examination called by the Ministry of the Presidency, Justice and Relations with the Courts. This process, which follows the principles of equality, merit and capacity, is aimed at selecting professionals qualified to perform forensic medical functions in the judicial field.

At present, the basic entry requirements are to have a Bachelor's degree in Medicine and to meet the general requirements for access to public employment (possessing Spanish nationality and not having been dismissed from service in any public administration). When determined by the Ministry, once the first year of specialists through residency is concluded, the title of specialist in MLYF⁴ will be required to enter the National Corps of Forensic Physicians.

Forensic physicians can be assigned to the IMLCF and to the toxicological information service of the National Institute of Toxicology and Forensic Sciences (INTCF), performing the functions entrusted by the LOPJ and its respective regulations.

Opportunities also exist in the General Judicial Mutual Society, performing the following functions⁹:

- Advise on the management of healthcare provision, pharmaceuticals, and social care.
- Prepare healthcare agreements and regulatory developments.
- Prepare medical reports on the benefits established in the Special Social Security Scheme for personnel in the Justice Administration System.
- Coordinate and supervise medical offices located in the judicial headquarters of the organisation.
- Advise members on healthcare, pharmaceuticals, and social and complementary benefits.

Furthermore, Law 38/1988,¹⁰ of December 28, on Division and Judicial Staff, in its article 25, contemplates 2 positions of forensic physicians in the Ministry, with the following functions, to:

- Advise the Ministry on issues related to forensic medicine and the National Corps of Forensic Physicians.
- Advise and collaborate in the preparation of protocols, regulatory projects, and technical reports in the area of legal and forensic medicine.
- Participate in the technical bodies of the Ministry and the General Directorate for the Public Service of Justice: National Technical Commission for Multiple Victims, National Commission for the forensic use of DNA and Forensic Medical Council.
- Maintain relations with other organisations whenever they show interest in forensic medical activity.

The Criminal Procedure Act¹¹ regulates the intervention of these professionals in the criminal justice field in Spain. In this context, forensic physicians collaborate with Justice Administration magistrates, judges, prosecutors, and lawyers in the investigation of causes of death, assaults, imputability, and other issues of legal interest.

Other forensic physician functions are to assess injuries, sexual violence, gender violence, and work accidents. Specific regulations, such as the Organic Law on Comprehensive Protection Measures against Gender Violence (LO 1/2004) in Spain,¹² establish the collaboration of these specialists in the assessment of injuries and support for victims.

Admission to the National Institute of Toxicology and Forensic Sciences

The National Institute of Toxicology and Forensic Sciences (INTCF for its initials in Spanish) is a technical body attached to the Spanish Ministry of Justice, the main mission of which is to assist the Justice Administration System in toxicological and forensic matters. Its operation and structure are regulated by various stipulations that establish its functions, organisation, and procedures. In the last call for applications, Order JUS/1322/2022, of December 28, by which a selective process was called for access by open competition, to the Special Corps of Physicians of the INTCF by the selective system of competitive examination, medical graduates could apply for the 3 specialties: biology, histopathology, and toxicological information.¹³

A doctor specialising in legal and forensic medicine may play a decisive role in certain INTCF services and areas, where their knowledge is used in the investigation and resolution of cases in the field of justice. These include the toxicological information service (writing reports and assessments for judicial proceedings, explaining the effect of toxic substances on the subject) or, for example, in areas of anthropology or forensic genetics.¹⁴

Admission into University academic bodies

With the promulgation of Organic Law 2/2023, of March 22, of the University System (LOSU),¹⁵ significant changes were introduced into university governance, academia, and public funding. The university system provides and guarantees the public service of higher education through teaching, research, and the transfer of knowledge, both in public and private universities. One of the main objectives of this organic law was to eliminate precariousness in university employment and to implement a stable and predictable academic career with the development of 3 stages: incorporation, consolidation, and advancement. The university teaching and research staff is made up of civil servant lecturers (full professor and tenured professor) and contracted teaching staff (assistant lecturer, permanent lecturer, associate professor, and temporary lecturer). There are other figures such as honorary professor, visiting professor, or emeritus professor. With the new regulation, the maximum number of temporary contracts for teaching and research staff in force at public universities is reduced from 40% to 8%. In addition to a doctorate degree, access to university teaching bodies requires accreditation by the National Quality Agency, although this not necessary for the figure of assistant lecturer. Universities have developed regulations for the selective processes of the different teaching staff positions. Professional and occupational development in the university environment is currently

particularly important and significant in the faculties of medicine. In recent years, there has been an increasing presence of non-medical teaching staff for teaching degrees in medicine and, although a multidisciplinary approach to training is necessary, sufficient medical teaching staff is essential, and particularly in the medical specialties, as is the case of the legal and forensic medicine specialty. Depending on the academic offer of each university, the 3 university training cycles of bachelor's, master's, and doctoral degrees, include subjects and courses in legal and forensic medicine with the teaching of both specific specialty subjects, and those of related disciplines. The legal and forensic medicine area is covered by the teaching of different subjects which form part of: a degree in medicine; undergraduate and postgraduate degrees in other health sciences; other science degrees; social science degrees; legal science degrees, and other degrees offered by the individual universities.

The legal and forensic medicine specialist can either be employed full-time at university, as a university lecturer on the university teaching body, and, previously either as a part-time member of staff as assistant lecturer or as a member of staff of legal medicine hospital services.

In the short-term future, another essential objective should be that legal medicine and forensic science institutes link places to universities, following agreement between the Ministry of Justice and/or Autonomous Communities with ensuing jurisdiction and the University Chancellors, with any of the types of university teaching staff, similarly to that of the healthcare places, as established by LOSU.¹⁵

The creation of legal medicine units in hospital services

This presents an opportunity for doctors specialising in MLYF. The implementation of a Hospital Legal Medicine Service, as an advisor and consultant in medical–legal, ethical, and deontological aspects of care practice, has been consolidated in the Hospital Clínico de San Carlos in Madrid.¹⁶ A recently established unit has also been created in the Hospital Clínico de Barcelona, which is dependent on the Clinical Quality and Safety Directorate.¹⁷ We believe that in the future this type of services or units will be implemented in various hospitals in Spain, and units that are dependent on various primary care centres could also be created to provide support in medical-legal aspects in the area of health.

Insurance company consultancy

MLYF specialist doctors can advise insurance companies by carrying out risks assessments and evaluating cases involving life insurance; accidents; damage assessment; injury or death issues, where some type of liability is requested. They can also train the staff in charge of processing claims. An important task is the assessment of bodily injuries, applying the compensation scale of Law 35/2015, of 22 September, on the reform of the system for the assessment of damages and injuries caused to people in traffic accidents.¹⁸

In the areas of research and analysis of health liability cases

Collaborating with the Departments of Health of Health Councils of the Autonomous Communities. In some autonomous communities, such as Catalonia, the management, processing, and defence of health liability cases are coordinated and integrated with the Department of Health of the Generalitat of Catalonia and the Council of Medical Colleges of Catalonia, where there is a professional health liability service and where several specialists in legal and forensic medicine and other medical specialists work.¹⁹

Integration in participation in national and international human rights organisations

Legal and forensic medicine specialists also participate in organisations like the Red Cross and International Amnesty, collaborating in identifying human remains in areas of conflict and in cases of enforced disappearance.²⁰ Currently, in countries where crime is high and enforced disappearances are frequent, such as Mexico, Pakistan, and Sri Lanka, the creation of teams to investigate them is necessary. The Office of the United Nations High Commissioner for Human Rights is responsible for human rights investigations and the role of doctors specialising in legal and forensic medicine or forensic physicians is key.²¹ UN experts warn that there is a pattern of impunity reflected in Mexico, a country with more than 100 000 disappearances. The Regional Centre for Human Identification in Coahuila de Zaragoza (Mexico) has now been established and opened in 2019.²² The International Committee of the Red Cross (ICRC) works to protect human rights, especially in armed conflicts and situations of violence. Its work is based on the principles of International Humanitarian Law, which seeks to limit the effects of armed conflicts and protect those who do not participate or have ceased to participate in hostilities. The ICRC applies forensic medicine for human rights purposes and the identification of deceased persons.²³

Collaboration with penitentiary institutions

The MLYF specialist can carry out tasks within penitentiary institutions, since due to their training they can collaborate in the assessment of injuries and determine their origin and detect cases of violence. They can also carry out psychiatric evaluations and assess the risk of suicidal inmates. Another of the functions is to offer advice to the management of the centre and collaborate with the penitentiary doctors in their forensic training, as well as with the forensic physicians assigned to the penitentiary surveillance courts. The MLYF specialist will need to be familiar with penitentiary legislation and its protocols.²⁴ In addition, they can participate in suicide prevention programmes and in ongoing training for prison officers in matters related to forensic medicine. They can also collaborate with the Treatment Boards, contributing to the assessment of penitentiary grades in Spain, evaluating criminal profiles and the risk of violence.

Collaboration in public health programmes and epidemiology

Thanks to their training, MLYF specialists, can collaborate on topics such as addictions; gender violence and child abuse; analysis of sexual assaults; accidents, and mental health.^{25,26,27,28} This collaboration by forensic medicine experts is of great help in the development of preventive programmes.²⁹ In addition, a task of great interest is mortality analysis, studying mortality statistics from the INE and death certificates.^{30,31}

Integration in police criminal investigation units

The collaboration of the legal and forensic medicine specialist can aid the analysis of violent deaths, in collaboration with the police, performing a function which is different from the forensic examiner. They can also be integrated into and collaborate with Disaster Victim Identification teams in cases of armed conflicts or national or international catastrophes, in cooperation with INTERPOL.^{32,33,34}

Collaboration in official medical associations

The legal and forensic medicine specialist can perform advisory functions on issues of professional liability, medical ethics, and ongoing training in the field of legal medicine aimed at physicians of other specialties. They can also collaborate as experts of disciplinary proceedings. Likewise, their collaboration in the management of legal medical risks in the healthcare field can be of great help.

Conclusions

The specialty in legal and forensic medicine offers a wide range of job opportunities, and has significant impact in the judicial, university, health, public administration, and private spheres. Legal regulations provide the necessary framework for these spheres, facilitating intervention in legal processes. To conclude, the future of the specialty is highly auspicious, since it has a wide field of professional practice, and training through the medical residency system will promote the development of competency skills and high-level professionalism to enhance professional practice.

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Declaration of competing interest

Dr. Josep Arimany Manso and Dr. Amadeo Pujol Robinat are members of the Editorial Committee of the Spanish Journal of Legal Medicine but have not participated in the manuscript evaluation process.

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