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### EDITORIAL ARTICLE

## Intervention of the Institute of Legal Medicine and Forensic Sciences of Catalonia in the events of multiple victims of Barcelona and Cambrils in August 2017<sup>☆</sup>



## Intervención del Instituto de Medicina Legal y Ciencias Forenses de Cataluña en los sucesos de víctimas múltiples de Barcelona y Cambrils en agosto del 2017

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Since its creation in 2002, the Institut de Medicina Legal i Ciències Forenses de Catalunya (IMLCFC) [Institute of Legal Medicine and Forensic Sciences of Catalonia] has participated in a number of incidents with multiple victims such as the attacks in Madrid on 11 March 2004, the tsunami in Southeast Asia in 2005,<sup>1,2</sup> the Spanair aviation accident in Madrid in 2008,<sup>3</sup> the accident in Castelldefels in 2010 when a group of people were hit by a train,<sup>4</sup> the Germanwings aviation incident in the Alps in 2015, the coach accident in Freginals (Tarragona) in 2016 and, lastly, the attacks which took place in various locations in Catalonia in August 2017.

Since the first guidelines were produced many years ago there have been numerous changes in terms of methodology and analytical procedures. Mandatory legal protocols have been published, such as Royal Decree (RD) 32/2009<sup>5</sup> approving the National Protocol for Medical Examiners and Scientific Police in incidents with multiple victims, which has brought structure and organisation to the enormous amount

of complicated work involved in dealing with these situations.

The task requires complex methodology, with the main objective being the early and effective identification of the victims. We have to be very aware of how shocking the situation is emotionally for the relatives, and it is therefore extremely important to act quickly and rigorously in order to return the bodies of the deceased to them.<sup>6,7</sup> In Spain, RD 32/2009 sets out the methodology and the relationship between the Institutos de Medicina Legal (IML) [Institutes of Legal Medicine], the Instituto Nacional de Toxicología y Ciencias Forenses (INTCF) [National Institute of Toxicology and Forensic Sciences] and the state security forces and services. The attacks of last August in Catalonia affected different geographical locations (Les Cases d'Alcanar in the south of Tarragona province, the Ramblas in Barcelona, Sant Just Desvern, Cambrils and Subirats) and occurred at different times. This meant that different medical-forensic teams had to be activated for each incident, involving a total of 71 medical examiners, 24 forensic pathology specialist technicians and five administrative staff, in addition to the rest of our colleagues who were carrying out the daily activities of the institute.

There were a total of 25 deaths as a result of different causes and circumstances, dispersed geographically as mentioned above. The largest number of deaths were on the Ramblas in Barcelona and it was immediately following that incident that the RD 32/2009 Protocol was activated.

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In Barcelona, first of all, the corpse removal team was set up: seven medical examiners, who worked alongside the Mossos d'Escuadra [Catalan autonomous police force], at the scene of the incidents. A Data Integration Centre was also set up, consisting of the head of the Scientific Police Division of the Mossos d'Escuadra, the director of the Barcelona Department of the INTCF and the director of the IMLCFC.

The ante-mortem teams were put together, made up of medical examiners, psychologists, social workers (the latter two being external staff from the IMLCFC) and Mossos d'Escuadra police officers. In coordination with the Operations Department of the Ciutat de la Justícia (CJ) (Departament de Justícia de la Generalitat de Catalunya) [Catalan Autonomous Government Ministry of Justice] these teams were set up within the CJ in Barcelona.

Once the corpses had been taken to the CJ Department of Forensic Pathology, the post-mortem examinations were performed and completed with seven hours. This meant that DNA samples and fingerprints were already available for analysis by the INTCF and the Catalan Scientific Police respectively.

Once a definitive identification was obtained, an identification report was drawn up with the consensus of the members of the Data Integration Centre and delivered by hand to the different courts of Instruction in Barcelona so that the respective relatives could be informed. All of the bodies were identified within 70h of the start of the post-mortems.

The day prior to the incident on the Ramblas there had been a number of explosions in the village of Les Cases d'Alcanar, requiring the intervention of the six medical examiners in the Terres de l'Ebre area for the removal of two corpses, the post-mortem examinations and sending samples for genetic analysis to the INTCF in Barcelona.

On the same night after the incidents had taken place in Barcelona, there were five deaths in Cambrils, and forensic teams had to be activated both for the removal of the corpses and for the subsequent post-mortem examinations.

Last of all, four days after the incident on the Ramblas, there was the death of an individual related to those events in Subirats.

The difficulties that arose in terms of managing this situation owed to factors such as the geographical dispersion of the affected areas, the different nationalities of the deceased, and the difficulty in explaining to the families that they had to wait for scientific confirmation of the identifications and that visual recognition of the corpse was not enough.

That is why it is very important to establish good communication with the relatives of the victims which is empathetic and trusting, not confirming identification until they are absolutely certain, but being fully aware of their pain and uncertainty. This approach can help reduce the relatives' anxiety.

Other factors that helped in terms of management of the situation were the autonomic nature of the IML, the great response of all the staff of the IMLCFC, offering to collaborate and even interrupting their annual leave, the medical examiners organising themselves into shifts for the ante-mortem teams, with exhaustive collection of data, and the training and experience of the members

of the Pathology Department, with quality control of the entire process.<sup>8</sup> Another important factor was the good coordination in the Data Integration Centre and the excellent collaboration with the CJ Operations Department, the Ministry of Justice, the Catalan Police, INTCF and the magistrates who intervened in the whole process.

As an innovation, we were able to offer all the staff of the IMLCFC psychological support in the weeks after the incidents to help them deal with the situations they had experienced.

Obviously, there were also situations open to self-criticism and where improvement would be required in the future, such as the limited provision of food for the members of the intervening teams (especially in Barcelona), the non-activation of dentistry specialists during the post-mortem examinations, and a certain lack of training in the application of RD 32/2009.

We therefore have to work hard to correct all those situations, and continue training and preparing ourselves.

Lastly, it is important to highlight that this type of situation always places a great deal of stress on any organisation, including on the IMLCFC. In our case, however, thanks to the great collaboration and effort of all the members of the Institute, we were able to successfully complete our task. The manner in which we accomplished this brought us recognition both from the community, allowing us to take part at the head of the demonstration to condemn the attacks, as well as from the Parliament of Catalonia, with the concession of the Gold Medal; we were also awarded a decoration by the Catalan Police School of Public Safety and, last of all, recognition from the Assembly of the High Court of Justice of Catalonia.

## References

1. Barbería E, editor. *Catástrofes: identificación de víctimas y otros aspectos médico-forenses*. Barcelona: Elsevier; 2015.
2. Barbería Marcalain E, Arimany Mansó J, Vidal Gutierrez C, Bardalet Vinyls N, Hospital Ribas A, Ortigosa Ruiz JF, et al. Identificación de víctimas del desastre del tsunami en Tailandia. *Med Clin (Bar)*. 2005;124:734-41.
3. Andreu Tena E, Pera Bajo FJ. Actuación médico-forense en el accidente de Spanair en Barajas el 20 de agosto de 2008. *Rev Esp Med Legal*. 2009;35:12-8.
4. Barbería E, Martín-Fumadó C, Galtés I, Subirana-Domenech M, Puigbarraca-Sol L, Vidal-Gutiérrez C, et al. Managing the identification of the mortal victims run over by a train in the Castelldefels railway accident (Barcelona). *Legal Med*. 2015;17:366-70.
5. Real Decreto 32/2009, de 16 de enero, por el que se aprueba el Protocolo nacional de actuación Médico-forense y de Policía Científica en sucesos con víctimas múltiples. Boletín Oficial del Estado, 6 de febrero del 2009, núm. 32, p. 12630-12673.
6. *Guía para la identificación de víctimas*. Comisión Técnica Nacional para sucesos con víctimas múltiples. Ministerio de Justicia. Secretaría General Técnica; 2011.
7. *Guía de intervención en sucesos con víctimas múltiples «qué se debe y qué no se debe hacer»*. Comisión Técnica Nacional para sucesos con víctimas múltiples. Ministerio de Justicia; 2015.
8. Martínez-Alcazar H, Subirana-Domenech M, Castellà-García J. Las catástrofes llegan sin avisar. ¿Estamos preparados? *Rev Esp Med Legal*. 2018;44:89-93, <http://dx.doi.org/10.1016/j.reml.2017.04.001>.