



## Yale New Haven International Congress on Disaster Medicine and Emergency Management

### Abstract Submission Form

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**Abstract Text – Be sure to include Background/Objectives, Methods, Results and Conclusions**

**Introduction:** After 11 March 2004 terrorist attacks to Madrid, our analysis detected one important security lack in dispatch software of our SUMMA EM Dispatch Centre. Special difficulties arose in multiple EMS resources simultaneous activation and real-time movements' registration. Our tool was revealed to be inadequate, even dangerous, and main responsible of the enormous amount of chaos detected.

Previously to march-11, some deficiencies were suspected from our terrorist experience. Most of them became dramatically critical when four simultaneous MCI put our SUMMA Centre on trial.

Our suggestions are related to the detected deficiencies from the unofficial analysis of the event. They began to be evident after Dispatchers' reports from that morning work.

EM dispatchers had to forget common-day application, and began to work integrating information on a physical paper support. Many call-takers were required to assist dispatch work and hospital information, and the Informatics unit run to support EMD work implementing our critical beds availability on real time in a new created screen, making available information we really don't have in everyday work.

**Objectives:** In previous drafts, we encouraged EMS teams to field MCI works. Main work of EM Dispatch Centre must be aimed to integrate and coordinate all required efforts. We want to share a software demo and requirements for real-time MCI dispatch and management, specially related to detected deficiencies from previous experiences.

**Methods:** Most of valid and relevant information data were drawn from personal interviews with march-11 on-duty dispatchers, call-takers, centre physicians, technical personnel and some other implied agents, as from the preliminary analysis of the audio records. The list of relevant items were interactively collected and discussed with our experts panel from Medicina de Emergencia basada en la evidencia [www.mebe.org](http://www.mebe.org) website and the Informatics unit.

**Results:** We present the so-called software Gestión Integral de Recursos en Catástrofes (GIRECA), almost translated by *Integral Dispatch and Management of Mobile Resources in Disasters and MCI*. We also outline its main features, with special reference and comparison to the even actual obsolete one. You can see the demo by simulating four MCIs. GIRECA is integrated in the Disaster Plan and activated at once when strictly indicated. Almost 80-90 % of the terminals convert into GIRECA (Disaster) mode, allowing real-time MCIs dispatch control. This mode modifies personnel tasks, and everybody is re-directed to reinforce Disaster activities: Chief and regulator physicians, EM dispatchers, call-takers, software technician ones and some other support personnel. Direction and political above staff are also emergency advised. Most important, critical-beds coordination unit begins to work real-time.

GIRECA software is designed in order to favour dispatcher's intuition, easy work and security. It's designed as a windows interface with graphical icons (ex: mICUs) you can handle with your mouse and throw to the incident... It displays real time information about three main window systems.

First windows show field information from the call-takers and some other implied agencies, and allow information evolution. It's aided by GSM technology to identify phone calls' real origins. Integrated GIS and GPS you may zoom in and out, also allow to allocate scene, accesses, arrival and evacuation routes, special needs, possible contaminating winds, etc. Even you may collect triage information from EMS teams as it's delivered.

Second windows show EMS resources allocation, activation mode, focus and arrival times, triage information and critical beds needs to ask for a concrete medical specialty. It's specially designed for MCI work, and may divide task from different scenes to different dispatchers, or discover two real incidents believed to be only one.

Third windows show real-time critical beds information, specially occupation and availability to promote higher survival rates. We still have not evaluated ER patients' maximal capacity.

All the three above systems may share information, this patient origin and destination (trazability) and global control. Most of the windows information may generate independent reports (ex: by scene, resource, patient, hospital, etc.).

**Conclusions:** Previous experience in MCI dispatch was the main determinant factor in good outcome. We had no available indicators to evaluate our dispatch Centre in such an incident.

Actual software shows to be inadequate, and one of the most responsible of the enormous amount of chaos detected. GIRECA software is a specific tool for MCIs EMS dispatch, allows to collect and share information between all the out-of-hospital levels, and generates a record for support and evaluation.

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