



### F22 Mass Disasters: Training Dentists in Switzerland

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The goal of this presentation is to present and discuss a model for continued training in odontology applied to the context of a mass disaster.

This presentation will impact the forensic science community by showing a model of continuing education in mass disaster management aimed at dentists.

In recent years, the variety and the quantity of mass disasters such as transportation accidents, terrorist attacks, bombings, earthquakes, and nuclear accidents have increased.

Accurate identifications of victims remain one of the critical issues in the management of any mass disaster. Most of the time, visual recognition is an insufficient and unscientific approach to obtain reliable results. Dactyloscopy, genetic analysis, and odontology are the best techniques that may lead to a positive identification. These methods need to be performed by specific experts along with the general autopsy.

The teeth are among the most resistant structures of the human body and thus represent a high potential of individualization in situations of highly decomposed, cremated, or skeletonized bodies.

In order to optimize the chances of obtaining reliable results, any postmortem, antemortem, and reconciliation procedure has to be carried out by an odontologist who has sufficient training in this discipline. Any mass disaster involving a high number of victims may involve a sudden larger number of professionals to cope with the need of rapid and accurate identification.

Since 2006, the Medicolegal Institute of the University of Lausanne and the Disaster Victim Identification Unit of Switzerland has organized courses designed as an introduction to the essentials of odontological identification. The participants learn the basics of identification: postmortem examination, analyses of antemortem records, and reconciliation. They are also exposed to the key features of odontological identifications based on fragmentation and commingling in the context of a mass disaster. They learn how to use the DVI digital identification system (PlassData).

Currently, the courses span two days. In 2006, 2007, 2009, and 2012, the program was advertised to approximately 400 dentists in the French-speaking part of Switzerland. It was also advertised in the monthly Swiss Journal of Odontostomatology. In each case, over 200 dentists responded but only 30 could enroll because of the limitations inherent to the organization of practical, hands-on exercises. The speakers and other staff (odontologists, forensic scientists, and investigators) are appointed on the basis of their academic training, experience in the field of identification, and teaching experience. All of the specialists have actively participated in the management of several mass disasters.

The first day of the course comprises an introduction to legal medicine, to forensic odontology, and to the principles of odontological identification. This theoretical part is followed by a practical exercise of identification of human dentitions carried out by teams of two participants.

During the second day of the course, the participants are introduced to mass disaster management. After a theoretical introduction, practical exercises are carried out to simulate a mass disaster scenario in which mixed fragments of human dentitions have to be identified.

The activities and behavior of the participants as a whole group and within the teams are observed by the teaching staff that is present throughout the course.

Each participant receives a written evaluation form designed to assess some general features of the course, such as overall organization and the usefulness and quality of the provided information. In addition, each participant is asked to define his or her motivation in attending this type of training. Last but not least, each participant has to assess his or her readiness to become involved in the management of a real mass disaster event on short notice and for an indefinite period of time. Every questionnaire distributed to the participants is returned to the organizers for thorough analysis.

Any motivated participant is then invited to be involved in a continuing education system organized by the DVI of Switzerland to keep up.

The presentation consists of a critical assessment of the course's organization, follow-up, and the feedback that was received.

**Odontology, Mass Disaster, Education**