



### F4 The Identification in 2011 of 77 Victims After the Bomb Attack on the Government Buildings in Oslo, Norway, and the Shooting at a Youth Camp at Utøya, Norway

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After attending this presentation, attendees will understand the importance of good Antemortem (AM) and Postmortem (PM) information for correct identification of all victims in two tragedies.

This presentation will impact the forensic science community by discussing how a broad and thorough examination of all bodies should be completed. A small detail may be the essential element to establish identity. Identification cannot be made without comparative AM material and dental information may be just as essential as DNA and fingerprints and, together with medical and police evidence, help to secure a correct identification.

On July 22, 2011, after several years of preparation, 32-year-old Anders Behring Breivik, placed a van with 950kg of explosives outside the government buildings in Oslo. The buildings included the offices of the Norwegian Prime Minister and Minister of Justice. Several buildings were almost completely destroyed, but only eight people were killed. Approximately two hours later, Breivik, in homemade police uniform with guns and ammunition, ordered a boat to take him to Utøya, an island on the lake Tyrifjord approximately 40km to the west of Oslo. On the island, he shot 69 young people from the Labour Party's youth camp. He later argued that the reasons for his actions were to save Norway and Europe from the Muslims. The relatives and public expected an almost immediate identification of the victims. This required good AM and PM information for comparison. The Norwegian Identification Commission connected to National Criminal Investigations Service (Kripos) in Oslo, is responsible for identifications in such disasters. Because this was a criminal offense, a full autopsy was carried out on all victims. The victims from the government buildings and the streets nearby were severely mutilated by the explosion. Many of the victims from Utøya were shot in the head and face. During the autopsies, two dental teams consisting of either two or three dentists served five autopsy teams. All victims were subjected to a systematic examination including full registration of dental status. Digital photographs and radiographs were taken by the same dentists who did the examination using a Nomad handheld X-ray machine. Documentation of injuries from the shooting was important for the reconstruction of the event. Manual registrations of PM records were made on Interpol forms during the autopsy at the Institute of Forensic Medicine and later transferred to the PM forms in the computer program DVI System International (Plass Data) at the ID-center at Kripos. Photographs and radiographs from each victim were also included in the program.

AM information was transferred directly to the AM forms in the computer program for comparison. Computers aided the search for identity and facilitate printing professional comparison reports to be included as documentation of the identification.

In this incident, collection of comparative DNA samples was made at the Relative Centers and this enabled a rapid identification by DNA. Dental records from 57 victims (74%) were collected. Once identity was established further search for dental records was stopped. For 31 persons (41% of the victims) identity was established by dental means. This constituted 54% of those with available dental records. This was higher than expected as the average age of the victims at the time of the shooting was 18 years and many of them had no or few fillings. The identification of all 77 victims was concluded in six days using all methods and combinations of methods for identification.

**Terror Attack, Identification, ID-Commission**