



Pathology Biology Section – 2010

G63 Mortuary Management in the Aftermath of the 2009 Australian Bush Fires

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After attending this presentation, attendees will have a greater understanding of the principles and logistics behind mortuary management following a mass fatality incident.

This presentation will impact the forensic science community by serving as a reference for improving the management of the dead and encouraging greater emergency preparedness within communities.

The Victorian Institute of Forensic Medicine (VIFM) is a statutory body with the responsibility to provide forensic pathological, clinical forensic medical, and related services to the State of Victoria, Australia. This includes the conduct of postmortem examinations and the provision of a range of forensic scientific investigations in cases referred by the coroner.

One of the roles of the VIFM is to provide scientific services in the event of multiple fatalities within the State of Victoria and extending to around Australia where necessary. Some of these past incidents include the 1996 Port Arthur Massacre, 2003 Bali Bombing, 2004 Tsunami and the Australian Embassy bombing in Jakarta.

On February 8, 2009 now known as Black Saturday, the State of Victoria, Australia suffered the deadliest bushfires recorded in its history. There were 173 fatalities and over 2,200 homes were destroyed. Over the following days 298 suspected human remains were admitted to VIFM.

On the day of the fires VIFM activated its emergency plan. Within 48-hours, a temporary mortuary was constructed adjacent to the existing mortuary facility. This temporary mortuary had the capacity to store up to 300 deceased persons. It was linked to the main building by a series of marquee walkways, was completely undercover and surrounded by security fencing. Additional catering and office spaces were also constructed.

Pathologists, anthropologists, odontologists, police, and mortuary assistants responded from all around Australia, New Zealand and Indonesia. The mortuary facility and staff were divided into two areas: DVI (Disaster Victim Identification) and "normal operations."

A high priority for the mortuary was to ensure all "normal" admissions of deceased persons (those cases which were not related to the bushfires) were handled concurrently and in a timely manner. The VIFM examines approximately 3,000 deceased persons per year and in 2005 a multi-slice CT scanner was installed. This scanner has become integral to the day to day operations of the VIFM and played a major role in the identification of the victims.

On admission, each bush fire victim was given both a unique DVI and a coroner's case number. The case was CT scanned, examined by a pathology team, an anthropologist, an odontologist, and in some instances a fingerprint expert. Where possible a DNA sample was taken. All processes, samples, labels, and paperwork underwent a quality assurance check prior to the case completion. Regular audits were conducted. The majority of postmortem examinations were completed within twenty days of admission.

Occupational health and safety issues of the staff were paramount; this included correct manual handling, infection control, and psychological debriefings. During the operation it was found that some remains were contaminated with asbestos. Procedures were set in place to manage these cases individually and each was isolated to reduce the exposure to staff.

On May 1, 2009 the identifications of all missing persons was complete. Of the 164 missing persons, 163 were found, identified, and the remains returned to the families. Nine deceased persons died in hospital or related circumstances and did not undergo the formal DVI process.

This operation identified a number of significant challenges, in particular the management of multiple parts of human remains for one individual. A new procedure was developed to ensure all human remains, where possible, were reconciled with deceased persons prior to the release to the funeral director.

Finally, no mass disaster operation can function successfully without a close working relationship between police, mortuary, medical examiners, and coronial staff. This operation highlighted the value of cultivating this relationship during the "quiet" times to ensure efficient activation of an emergency response, timely identifications, and ultimately some degree of closure for the victim's families.

Mortuary, Disaster, Bush Fires