D16 The Role of Radiography in the Forensic Investigation of Mass Incidents

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The goal of this presentation is to review the role of radiology in the forensic investigation of mass incidents and present guidance for planning of effective forensic radiology services within temporary mortuary situations.

This presentation will acquaint the audience with the work of the Trauma Imaging Group Forensic Radiography Sub-Committee (UK), which has reviewed the requirements and practical considerations for the provision of effective forensic radiology services within emergency temporary mortuaries to assist with the investigation of Mass Incidents.

The committee has produced guidelines for the design, equipping, and operation of on-site forensic radiology facilities within temporary emergency mortuaries, which it believes, will be of interest to the forensic community.

Radiological imaging is a powerful tool in forensic medicine. It is widely used to determine cause of death or injury, to assist in the identi- fication of deceased persons, or in the investigation of non-accidental injury in children or the elderly (NAI). Whilst most cases involve the radiological examination of an individual, radiology is playing a signif- icant and increasing role in the investigation of mass disasters, terrorist incidents, war crimes, and large-scale human rights abuses.

Large-scale investigations of this nature require detailed organi- zation and the rapid deployment of teams of forensic professionals for operating environment which complies with health and safety guidance and statutory regulations for the use of ionizing radiations, together with the deployment of suitably trained staff working to well defined opera- tional procedures.

The precise requirements for radiological facilities in the investi- gation of mass incidents will be dependant upon the nature of the incident under investigation. However, radiology frequently occupies a key role in the investigation or identification procedure. Despite the important nature of the role of radiology and the need for detailed plans to be in place, the provision of radiology facilities is often overlooked by those responsible for Emergency Planning, and has frequently relied on *ad hoc* arrangements for requesting equipment and staff from local health-care facilities.

It is important that those undertaking such forensic examinations are appropriately trained and equipped to practice in this challenging field, as they will often be required to work in less than ideal locations and circumstances. The operation of a successful radiology facility in field conditions requires detailed planning and training and many of the healthcare professionals called upon to assist are ill-equipped to respond to large scale incidents of this nature.

Drawing on experience of incidents in the United Kingdom, The Republic of Ireland, The Former Yugoslavia and Sierra Leone, the Trauma Imaging Group Forensic Radiography Committee has reviewed the requirements for the provision of an appropriate forensic radiology service within the temporary mortuary environment. The committee has produced guidelines for the design, equipping, and operation of on-site forensic radiology facilities within temporary emergency mortuaries, and has been called upon to advise a number of central and local government organizations within the United Kingdom.

This presentation will outline the history of radiography in the forensic investigation of mass incidents, its main uses and the potential for further development. It will examine the role of the radiographer/technologist within the forensic team, and the importance of training and familiarity with legislation and guidelines that underpin good forensic practice.

It will review the current organization of forensic radiography ser- vices for the investigation of Mass Incidents and highlight some of the practical problems encountered by those asked to provide the service. It will discuss possible solutions that may be adopted when planning for such incidents, detailing the necessary training, organization, protocols, and equipment to be considered.

Forensic Radiology, Mass Disasters, Emergency Planning

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