



### **K57 The Use of a Forensic Case Management System to Deliver Evidence-Based Science and Research**

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After attending this presentation, attendees will better understand how extracting information from a case management system can inform interpretation in medicolegal casework.

This presentation will impact the forensic science community by informing attendees of the value of producing evidence-based opinions in casework.

The Victorian Institute of Forensic Medicine (VIFM) provides forensic medical and scientific services for medicolegal death investigations, convictions within the judicial system, and the health and safety of Australians as well as a variety of overseas communities. VIFM operates under two main streams, Forensic Services and Academic Programs. Forensic services include forensic pathology, sciences (toxicology, molecular biology and histology), and clinical forensic medicine.

VIFM services are reliant on a highly developed integrated Case Management System (iCMS). This flexible system has been modified and improved over a 20-year period and can be readily adapted to any forensic or clinical setting to provide organizational efficiency and effectiveness in managing casework. This system allows all specialties within the forensic investigation pipeline to have real-time access to case information. This includes case history, analytical results, uploading of supporting documents and images, case communications, and other investigative information. The system provides key indicators and other operational metrics that can be used to monitor performance. In addition, iCMS offers a reporting mechanism to determine the number of cases received, per case type, time taken to complete a case, and produces reports with statistical analysis. With its unique design, this web-based system can be installed in large or small organizations using a modular approach; its design permits incremental evolution in the system to support organizational change and operational service demands.

Finally, the iCMS provides a mechanism to capture case information that can be readily accessed for research purposes, as it offers a database of invaluable forensic information. For example, captured drug and alcohol data sourced from the iCMS has facilitated national and international research projects, such as understanding the prevalence of drugs in fatality drivers and identifying emerging trends in unexpected drug deaths.<sup>1,2</sup>

From case initiation to the production of evidence-based research, the iCMS provides an innovative and seamless approach to forensic operations.

#### **Reference(s):**

1. Drummer O.H., Gerostamoulos J., Batziris H., Chu M., Caplehorn J., Robertson M.D., Swann P. The involvement of drugs in drivers of motor vehicles killed in Australian road traffic crashes. *Accid Anal Prev.* 2004 Mar; 36(2):239-48.
2. Pilgrim J.L., Woodford N., Drummer O.H. Cocaine in sudden and unexpected death: a review of 49 post-mortem cases. *Forensic Sci Int.* 2013 Apr 10;227(1-3):52-9.

#### **Evidence-Based, Databases, Research**