

## E6 The Value of Outsourcing Selected Cases in a Medical Examiner Population: A Ten-Year Experience

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After attending this presentation, attendees will be able to determine the efficacy of a referral arrangement with a university-based autopsy service, establish criteria for a referral system, and evaluate the ability of the system to identify cases for referral.

This presentation will impact the forensic science community by providing an opportunity to improve workflow and decrease workload without compromising quality while generating continued forensic science interest among trainees.

In the United States and other countries, death investigation is often hampered by inadequate staffing, creating a difficult burden for coroner/medical examiner offices. Moreover, in recent years, caseloads have increased drastically, as most jurisdictions have experienced dramatic increases in deaths due to both prescription and illicit drug use. The National Association of Medical Examiners (NAME) recommends that caseloads for Forensic Pathologists (FPs) not exceed 250 autopsies/year. Offices in which FPs perform greater than 325 autopsies/year may have difficulty attaining accreditation or possibly lose accreditation. Since 2006, pathologists at the University of Alabama at Birmingham (UAB) have performed select autopsies for the Alabama Department of Forensic Sciences (ADFS). The purpose of this study is to report on ten years of experience performing autopsies for the ADFS and analyze the efficacy of outsourcing select medical examiner cases to a university-based autopsy service.

Standard forensic protocols and orientation were provided to the university-based pathologists at the initiation of the program. Data for this study includes completed cases from June 2006 through July 10, 2015. For each case, a state FP reviewed the findings of the scene investigator and determined if the case was appropriate for referral. Exclusion criteria included homicides, motor vehicle accidents with pending criminal charges, decomposed or unidentified bodies, and most pediatric cases. All referred cases received full postmortem examination including microscopic examination of select organs; vitreous, blood, and urine were routinely collected on all cases, and toxicology was ordered as appropriate. The referring FP and the state chief medical examiner were available for consult via phone or in person, as needed. A written report with all anatomic and microscopic findings was submitted to the state FP. The final cause and manner of death were determined by the referring state FP after review of the scene investigation, autopsy findings, and toxicological findings.

A total of 414 cases were referred for which cause and manner of death determination were completed: 237 cases were ruled accidental deaths (180 due to drug toxicity, 43 due to trauma, 6 due to drowning, 4 due to burns, and 4 other); 168 cases were due to natural disease with the majority of these being due to cardiovascular disease; 3 cases were ruled suicides; and 6 were ruled undetermined causes and manners of death. Five of the cases had suspicious internal injuries that raised the possibility of foul play. After additional information was obtained, including additional scene investigation or consultation with the referring FP, homicide was ruled out in all these cases. To date, no referred case is pending in the court system.

In conclusion, outsourcing of select forensic cases can be an effective tool to manage workflow without compromising quality. There are many benefits to such a referral arrangement, including helping diminish caseloads of state FPs so they can concentrate on more time-consuming cases such as complex homicides, assuring pathology residents adequate autopsy experience, and providing pathology residents with increased exposure to forensic pathology early in residency, which may increase interest in forensic pathology. Furthermore, a university-based outsourcing arrangement has the potential to provide microscopic examinations and onsite subspecialty consultation for certain cases, postmortem studies that are not always necessarily available to all medical examiners' offices.

## Autopsy, Referral, Investigation

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