

## Pathology/Biology Section - 2015

## H145 A Novel Approach to a Quality Program in a Medical Examiner's Office

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After attending this presentation, attendees will understand a robust quality program implemented in a statewide medical examiner's office.

This presentation will impact the forensic science community by setting a high standard of quality in a medical examiner's office using concepts of reasonableness that are independently reviewable.

Forensic pathology is a sub-specialty of pathology responsible for the determination of cause of death in individuals dying suddenly, unexpectedly, or violently. Just like other branches of pathology and laboratory medicine, a robust quality control and quality assurance program is essential to ensure the product generated is of the highest quality to best serve the families of the deceased and the medicolegal communities. Although there are no minimum standards to which medical examiner/coroner offices must adhere, the National Association of Medical Examiners (NAME) offers a voluntary accreditation that attempts to ensure that offices meet a minimum set of criteria for death investigation. Having a functional quality assurance program is a component of this accreditation; however, NAME only dictates that a quality program is in place and documented; it neither specifies how the program should be structured nor does it specify any details such as a percentage of cases to be reviewed or whether reviews are to be prospective or retrospective. The New Mexico Office of the Medical Investigator have developed one of the most comprehensive and robust Quality Programs (QP) in the field of forensic pathology.

The QP has two arms: a Quality Assurance (QA) arm and a Quality Control (QC) arm. QA is defined as a prospective activity to ensure that the death investigation report is of the highest quality with reasonable conclusions as to the cause and manner of death. This program defines QC as a retrospective activity to ensure completed death investigation reports have met a high standard of quality with reasonable conclusions as to the cause and manner of death.

Reviews focus on the concept of what is "reasonable" because it is recognized that forensic pathologists can have a legitimate difference of opinion regarding cause and manner of death and it is also possible that both opinions are reasonable. Even though a peer reviewer may disagree with the opinions of the original pathologist, the conclusions are deemed reasonable if the reviewer can follow the logic used and understand how decisions and diagnoses were made. Another key component of the program is to ensure that all reports are "independently reviewable," which means that another forensic pathologist would have a sufficiently objective dataset (e.g., photographs, microscopic slides) to come to his/her own conclusions about the case and be able to agree or disagree with the conclusions reached by the autopsy pathologist. This is absolutely necessary to enable a quality review and also ensures that the report would be able to be reviewed by an external reviewer or another expert witness in the future.

The QA component reviews all homicides, all cases with an undetermined manner of death, and all deaths of children younger than five years (60 months) of age. This review is performed prior to completion of the case. The QA review of the pediatric cohort is slightly different: a committee chaired by the Director of Pediatric Forensic Pathology and consisting of the QP pathologist for the month and the forensic pathology fellows reviews the cases and forms a consensus opinion.

The QC arm is an administration-directed retrospective review of completed death investigations including Office of Medical Investigator (OMI) jurisdictional and consultation autopsies, pathologist external examinations, and investigator external examinations in cases with natural, accidental, and suicidal manners of death. In practice, with seven full-time forensic pathologists at the OMI, the QC arm will review 252 cases in this cohort annually.

The QP has not yet been implemented for a full year, but in 2012 (the most recent year with available data), there were 160 homicides, 1,578 natural deaths, 419 suicidal deaths, 1,458 accidental deaths, and 98 deaths of undetermined manner certified by forensic pathologists at the OMI. Included in these cases were 181 deaths of children under five years of age regardless of manner of death. In 2012, therefore, the two arms of the QP collectively would have reviewed 658 death investigations, or approximately 17% of the death investigations performed by the OMI.

A robust QP that demonstrates and ensures a commitment to producing quality death certifications and death investigation reports has been implemented at the OMI.

## Quality Control, Quality Assurance, Medical Examiner/Coroner

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