The Need for Forensic Advanced Practice Registered Nurses in Medicolegal Death Investigation

Medicolegal death investigation is mandated across the United States and serves the public interest by investigating and establishing cause and manner of death of those dying under sudden, unexpected, or suspicious circumstances. Medicolegal autopsies, completed by forensic pathologists (FPs), are a key component of many death investigations. However, there are not enough FPs in the United States to complete this work. It is estimated the United States currently has fewer than 500 FPs, whereas an estimated 1,280 are needed to fulfill the U.S. needs (Collins, 2015). At the current rate of recruitment, this gap may not close until 2046 (Collins, 2015; Weedn & Menendez, 2020). Past efforts to reduce the FP shortage through recruitment of medical students have not been successful; therefore, alternative strategies are warranted. One potential strategy is to draw from other medical fields. It is our contention that the integration of forensic nurse practitioners (NPs) in medicolegal death investigations may offer a novel, viable, and sustainable solution to the current FP workforce shortage.

Forensic Pathology Workforce Shortage: Roots and Impacts

The FP workforce shortage has significant implications for communities, families, public health, and criminal justice systems. Among the most pressing concerns are delayed performance of autopsies and the final reports of the autopsy findings. These two delays then result in a combination of system-level, and family and community impacts. These impacts include declines in autopsy rates, increases in the proportion of partial autopsies, shortcuts during forensic examinations, prolonged investigations, delayed burials, obstructed justice, and exacerbated grief among decedents’ friends and families (Weimer et al., 2021).

The current FP shortage is rooted in long-standing issues that are not easy to solve. For decades, local government-funded medicolegal death investigation systems have been understaffed and underfunded with certified, and often double-certified, FPs receiving lower salaries than hospital-based pathology colleagues (Brooks, 2021). In addition, the need for FPs has accelerated in part because of the growing number of retiring FPs, declines in medical students entering pathology, and increasing numbers of deaths from violence and drug toxicity (Woolf et al., 2020). Contributing to these issues are challenging work organization characteristics of the profession: FPs are habitually overextended, which leads to worker stress, fatigue, job dissatisfaction, burnout, and early retirement (Levin et al., 2021).

A broader issue is the long-standing statutes of many states requiring the medicolegal death investigative authority to be that of a FP. This mandate has resulted in state governments continuing to support a system that is neither regulated nor sustainable. As highlighted by national and international news media, the United States is currently facing many FPs deciding to privatize and provide contracted services with local governments, which results in inflated costs to the public that are unsustainable, nor do they ensure quality work (Brown, 2022; Camacho, 2021). For example, a county that contracts FPs as locum tenens will often pay higher wages than those employed by the county; furthermore, the locum tenens are often given cases that are unlikely to have criminal implications. In addition, the already limited pool of qualified FPs has identified this privatization approach to compensate for years of being underfunded, but it leaves governments with a nontenable crisis.

Strategies to Improve the FP Shortage

Within the last 10 years, two novel strategies have been employed to close the FP gap: the use of virtual autopsy or postmortem computed tomography scan, and the use of pathology/pathologist assistants within the autopsy suite. Unfortunately, both strategies have been haphazardly
implemented into practice within the United States. Thus, the traditional autopsy remains the gold standard for postmortem examinations, and the scope of practice of pathology/pathologist assistants is analogous to that of a medical student. As a result, FPs are still needed to evaluate and assume ultimate responsibility for their work. Additional strategies include outsourcing select cases for autopsies to non-FPs, often within academic settings (McCleskey et al., 2017). Although this can reduce workloads for FPs, many hospital pathologists are hesitant to participate in forensic cases because of the lack of specific training and potential of needing to provide expert testimony.

Nurses in Medicolegal Death Investigation

Forensic nurses already play a substantive role in medicolegal death investigation (Drake et al., 2020). In the last decade, the role of the NP has eased the burden of critical access in high-volume urban emergency centers and rural access areas (Liu et al., 2019; Ortiz et al., 2018) related to the severe physician shortage across the United States. With specific education and training, it is possible that the diverse NP capabilities can be harnessed to fill roles in the realm of the autopsy as well. It should be noted that, in other countries such as Mexico (Instituto Jalisciense de Ciencias Forenses), the autopsy is not conducted by either an FP or a pathologist but, rather, by general medical practitioners who consult pathologists as needed for histology expertise. Of note, the Instituto Jalisciense de Ciencias Forenses has achieved the highest of standards within the forensic accreditation market (ANSI National Accreditation Board, 2022). Rather than following the leads of coroner or justice of the peace jurisdictions nationwide, which often require no academic preparation—let alone a medical degree—we propose that integrating NPs into medicolegal death investigation is another route to consider.

Nurse Practitioners

The NP is a role described in the Consensus Model for APRN Regulation (Consensus Model; APRN Joint Dialogue Group, 2008). The Consensus Model identified population foci and specialty areas that have a basis in licensure, accreditation, certification, and education. In respect to the medicolegal death investigation, the population foci of the NP would be a family NP because of their scope of practice assessing and intervening with patients across the life span. This is defined as the pregnant woman, neonate through to the geriatric patient. This role and population foci would accommodate the licensure, accreditation, certification, and education necessary for the scope the NP would require entering the medicolegal death investigation specialty.

The emergency NP (ENP) specialty will serve as an example of how the forensic NP role could evolve. The specialty of ENP care is additional education that is after family NP completion. This too is described in the Consensus Model. The specialty is not regulated by the State Boards of Nursing, but it is guided by the specialty organizations’ competency identification and formal education in the specialty. Thus, in context to the forensic NP scope of practice, the physician and stakeholders in the specialty would establish the competencies they identify as necessary for the specialty to obtain licensure, certification, accreditation, and education to support the practice. Collaboration is key. The experts in the field (physicians) would be the leaders in this endeavor even in full-practice authority states. This support is necessary to enhance both the shortage of FPs and the requirements of carrying out multiple responsibilities and needing to be in many places at one time. The FP would direct the education and practice of the forensic NP specialist. Again, as an example, the ENP education was developed in collaboration with their physician counterparts—not to give the ENP autonomous practice in emergency care but to enhance the emergency physician’ reach. Initially, a proposal to develop a specialty NP curriculum would begin with need and competencies derived by the experts and a cohort of interested stakeholders, led by both FPs and NPs.

It should be noted that the incorporation of NPs in medicolegal death investigation settings would not be without its challenges. An autopsy is a medical procedure, but it is not a specific procedure to pathologists or FPs (Weedn & Menendez, 2020). In addition, scope of practice is often negotiated. For example, there was a time when inserting a chest tube and intubating a patient were both considered medical procedures and nurses were not permitted to carry out either skill; however, both procedures are now considered within the NP scope of practice (American Association of Nurse Anesthesiology, 2019). Furthermore, clinical forensic nurses are already embedded within the justice system, such as serving as expert witnesses, and what we are suggesting within the medicolegal death investigation setting is not such a large “leap” in practice.

Ultimately, our vision is not to create a “nurse FP”; instead, we are envisioning the evolution of the forensic nurse to a graduate-level provider with curriculum grounded in advanced practice science, leadership, quality assurance, management, and the ability to carry out a traditional autopsy. Within this vision, academic institutions would need to engage in extensive practice analysis and role delineation studies to identify what NPs would need in terms of academic and practical education. These studies would need to be carried out within existing institutional structures and include members from medical, nursing, and law schools as well as district attorney offices.

Conclusion

In summary, solutions that are outside the status quo of current medicolegal death investigation systems are urgently
needed to address the FP shortage. It is our contention that the integration of the forensic NP in medicolegal death investigations may be a means of decreasing some of the burden currently experienced by medicolegal death investigation systems and contribute to high quality of cause and manner of death determination to maximize benefits to communities served. The pathway ahead will not be easy, nor without barriers and challenges, but it is one that is worthy of exploration to curb the urgent and prolonged FP shortage crisis. It is our hope that this letter will be the impetus for families, members of forensic and academic organizations, professionals, and the U.S. public to engage in productive discussion regarding the potential for integrating forensic NPs into medicolegal death investigations, specifically within the autopsy suite setting.

Stacy A. Drake, PhD, MPH, RN, AFN-BC, D-ABMDI, FAAN
College of Nursing
Texas A&M University
Stacy Drake Consulting, LLC
stacy@stacydrakeconsulting.com

Elda Ramirez, PhD, RN, FNP-BC, ENP-C, FAANP, FAEN, FAAN
Cizik School of Nursing
The University of Texas Health Science Center at Houston

Michael K. Lemke, PhD
Department of Social Sciences
University of Houston-Downtown

Hannah C. Jarvis, MBBS, AICSM, BSc (Hons), MRCS (Eng), FCAP, FASCP
Harris County Institute of Forensic Sciences

The authors declare no conflict of interest.

References


Camacho, B. (2021). Webb County may have new medical examiner. KGNS TV. https://www.kgns.tv/2022/04/10/webb-county-may-have-new-medical-examiner/


