Reframing Death Care: Post-Mortem Imaging, Law, and the Future of Compassionate Coronial Investigation in the England and Wales

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Abstract. The investigation of death in England and Wales is defined by a paradox: a coronial system rooted in medieval law now tasked with managing twenty-first-century public expectations of transparency, accuracy, and compassion. Despite remarkable technological progress in medical imaging, the regulation of death investigation has lagged behind. Post-mortem computed tomography (PMCT) offers a validated, dignified, and efficient alternative to invasive autopsy, yet remains governed by inconsistent practice and policy inertia. This paper explores how radiological innovation, when combined with ethical and legal reform, could humanise coronial investigation while strengthening justice and public health. Drawing upon recent studies, including the Fuller Inquiry (2025), the *Voicing Loss* (2024) research, and peer-reviewed PMCT service evaluations (*Clinical Radiology 2023*; *BJR Open 2024*), it argues that death care should be held to the same evidential and compassionate standards as health care. The author proposes a national PMCT framework integrating training, accreditation, and governance - transforming death investigation from fragmented bureaucracy into a system of dignity, accuracy, and empathy.

Keywords: post-mortem CT; coronial law; forensic radiology; death care reform; bereavement; public health ethics

1 Introduction

The future of life is reflected in how we understand and honour death - in the systems we build, the compassion we show, and the truths we are willing to see. The treatment of the dead offers insight into the ethical priorities of the living. In England and Wales, post-mortem practice remains anchored in nineteenth-century paradigms despite the availability of twenty-first-century technology. Pathologist shortages, cultural objections, and system fragmentation have left many coroners unable to provide timely or humane investigations. [1]

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The 2025 Fuller Inquiry described the regulation of care after death as *"partial, ineffective and, in significant areas, completely lacking."* [2] This vacuum has allowed inconsistent practices to proliferate across coronial jurisdictions. While some regions have embraced post-mortem CT (PMCT) as a modern investigative tool, others still depend solely on invasive autopsy or operate without clear standards. This paper adopts an interdisciplinary methodological approach, combining doctrinal and policy analysis of the coronial system in England and Wales with a literature-based synthesis of empirical evidence from peer-reviewed post-mortem radiology studies, national inquiries, and bereavement research. The analysis is normative in orientation, aiming to evaluate existing governance arrangements and to propose ethically grounded reforms informed by clinical feasibility and lived experience. Unless otherwise stated, this analysis focuses on the coronial system of England and Wales, where coroners operate under the Coroners and Justice Act 2009, although many observations may have relevance to other UK jurisdictions. This paper examines how PMCT can bridge medicine, law, and compassion to re-establish public trust in death investigation.

2 Post-Mortem CT (PMCT) as a Diagnostic and Ethical Tool

PMCT applies clinical CT scanning to deceased patients that allow non-invasive assessment of traumatic, cardiovascular, and respiratory causes of death. International evidence demonstrates diagnostic concordance with traditional autopsy exceeding 90% for non-suspicious deaths [3–6].

In England and Wales, PMCT services operate in diverse configurations - static hospital-based scanners, relocatable CT units, and mobile scanners within mortuary grounds [6]. The *BJR Open 2024* paper by Davendralingam et al. compared these models and proposed safe hybrid radiology-pathology workflows which align with *ISFRI International Post Mortem Imaging Guidelines (2024)* [4].

Beyond diagnostic accuracy, PMCT represents an ethical evolution. It respects religious and cultural norms that prohibit invasive autopsy and provides faster answers to grieving families. By allowing clinicians to "see" without "opening," PMCT restores a measure of dignity to both patient and process.

3 Workforce Crisis and Structural Deficit

The pathology workforce is in critical decline. The Royal College of Pathologists, report that nearly half of histopathologists are aged 50 or older, and there are too few doctors in training to fill current vacancies or replace consultants nearing retirement [7].

This shortage undermines justice, coronial efficiency, and family closure. During these gaps, radiological services have, in practice, assumed a greater role in supporting coronial investigations. The *Clinical Radiology 2023* study by Beardmore et al. described how an entire HM Coroner region transitioned to PMCT during a pathologist

shortage - maintaining diagnostic accuracy and coronial satisfaction while eliminating backlog [8].

Yet despite demonstrable feasibility, there is no statutory framework for quality assurance, training, or accreditation. Responsibility is dispersed between the Ministry of Justice (coroners), the Department of Health and Social Care (clinical governance), and local authorities (funding), with none accepting ultimate accountability.

4 Fragmentation and the Postcode Lottery

PMCT is now operational in regions including London, Greater Manchester, Newcastle, Sheffield and parts of Scotland. However, each operates under different protocols, pricing structures, and governance. In some areas, scans are interpreted by radiologists with formal fellowship training; in others, by individuals with only a few hours of exposure to post-mortem imaging [6].

This inconsistency creates a postcode lottery in death care. Families in one area receive a modern, compassionate service; those elsewhere face delay, dissection, or denial. Errors in cause-of-death attribution propagate into national mortality statistics, skewing public-health data and epidemiological research.

While coroners and local authorities commission services with good intentions, they lack the clinical infrastructure to evaluate provider competence. The absence of national guidance (the sole RCR/RCPath G182 document dates to 2021) perpetuates risk [9].

5 Law, Consent, and the Experience of the Bereaved

For families, the coronial process is often alienating. The *Voicing Loss (2024)* study, the largest empirical investigation of bereaved experiences, found that many participants felt *"swept along on a tsunami of grief"*, describing coroners' investigations as re-traumatising and devoid of compassion [1].

PMCT directly addresses these harms. By providing rapid, non-invasive answers, it reduces the time between death and funeral, enabling compliance with cultural burial timelines and alleviating uncertainty. The ability for radiologists to review findings with families, through initiatives such as Anubix Ltd's *After Life Imaging Clinic*, demonstrates how medicine can humanise legal process.

Consent, long marginalised in coronial practice, re-enters the conversation through imaging. When families understand that answers can be achieved without incisions, their participation becomes voluntary rather than coerced by circumstance.

6 Toward a National Model for Ethical PMCT

A coherent national framework would provide a proportionate and ethically grounded response to current inconsistencies. Key recommendations are:

6.1 Accredited Training and Competency

Radiologists undertaking PMCT should complete structured training with theoretical and practical assessment. For example, the Anubix Fellowship model requires an 80% pass in theory, 70% in practical evaluation, double reporting with experts, and ongoing peer review. This replicates the quality assurance already standard in clinical radiology.

6.2 Governance and Audit

Regular peer review and case audit must be mandated. A national PMCT registry could monitor diagnostic concordance, turnaround times, and family satisfaction metrics.

6.3 Interdepartmental Oversight

A joint DHSC-MoJ-HTA taskforce should oversee implementation, defining competency, QA, and ethical standards.

6.4 Integration with Public Health Data

PMCT findings should feed into ONS mortality datasets, improving accuracy of cause-specific mortality trends.

6.5 Economic and Operational Benefits

Where capacity allows, NHS CT scanners can deliver PMCT with minimal disruption. System benefits include reduced invasive autopsy demand, faster release in delayed pathways, and better deployment of limited pathology capacity; overall value is likely to be cost-neutral or cost-saving in many settings but varies by local tariffs and delays.

Collectively, these measures would transform PMCT from local innovation into national infrastructure.

To note, PMCT is not suitable for all categories of death investigation, particularly where there is strong suspicion of homicide, complex soft-tissue pathology, or the need for toxicological sampling, and invasive autopsy will continue to play a necessary role in such cases.

Implementation of a national PMCT framework would also require investment in workforce training, scanner access, and equitable provision in rural or resource-limited regions.

7 Conclusion

England and Wales face a choice: whether to continue with a fragmented system that often fails families and professionals alike, or to move toward a more integrated model of post-mortem investigation. The available evidence strongly supports the feasibility and ethical advantages of post-mortem imaging, and public expectations for transparency and dignity are increasingly clear. Death care deserves the same governance, empathy, and accountability as life care. By codifying standards for PMCT, England and Wales have the opportunity to demonstrate leadership in the development of a more compassionate and accountable model of forensic medicine.

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