



The Hutton Review of Forensic Pathology, Imaging-based Autopsies and the Future of the Coronial Autopsy Service – A Commentary

The Hutton Review of Forensic Pathology in England and Wales

In March 2015, Professor Peter Hutton submitted his review of Forensic Pathology services in England and Wales to the Minister of State for Crime Prevention. Importantly, Hutton felt it was impossible to review forensic pathology without also reviewing non-forensic coronial autopsy services.

The report acknowledges the current high standard of practice within the forensic sector but also recognises the problems many areas have in providing the coronial autopsy service. The executive summary makes a number of recommendations designed to meet the future public need. The main recommendations are summarised below:

1. An employed status option for forensic pathologists within public service should be introduced to help prevent wastage of forensic pathology trainees.
2. NHS consultant job plans need to make provision for undertaking coronial autopsies within the approved sessional commitment to help address the service pressures within the coronial system.
3. The Group Practice model for forensic pathology should be reassessed to address the national imbalance in activity; the current proposed changes to regional police crime services present an ideal contextual opportunity for this to occur.
4. The current memoranda of understanding between the police and forensic group practices are being replaced by “Police User Requirements for Forensic Pathology”: these could form the basis for formal contractual arrangements going forward.
5. The number of mortuaries in use in England and Wales should be reduced by regionalising mortuary and autopsy services.
6. Second forensic autopsies should only be authorised following a formal application to a coroner or judge.
7. Forensic and coronial pathology services should be operated in conjunction with each other in a national death investigation service. This could be introduced through the dormant legislation in the Coroners and Justice Act 2009 relating to the Medical Examiner system.
8. All funding for forensic and coronial autopsy provision should be brought together in a single independent location; a special health authority is one possible means of achieving this.

The future of the coronial autopsy service in England and Wales

In 2015, the College received a number of reports of English regions experiencing difficulties in providing a coronial autopsy service. Reasons given included the poor level of remuneration, conflicts with Coroners over the ability of the pathologist to adequately investigate deaths, the impact



of the Human Tissue Act and the introduction of optional autopsy training. The College therefore initiated a survey of its fellows and trainees to collect as much data as possible to give an accurate view of the state of the service.

463 consultants and 70 trainees took the survey, which produced results that were at odds with some commonly held opinions on a number of subjects.

71% of consultants taking the survey undertook coroner's autopsies, which was higher than the oft-quoted figure of "less than 50%", although those taking the survey were probably a self-selecting population. Three other facts were more surprising however:

1. 26% of currently autopsy-active consultants intend to give up in the near future.
2. 92% of consultants who don't undertake autopsies did so at some point in the past.
3. 70% of trainees are continuing with autopsy training and 90% of those intend to undertake coronial autopsies as a consultant.

This combination of findings suggests that the main problem in providing the coronial autopsy service is in fact autopsy-trained pathologists giving up coroner's work, rather than not providing enough new autopsy-trained pathologists. If we extend the findings of the survey to the entire professional body, we are likely to lose around 200 pathologists from the coronial autopsy service in England and Wales in the next few years. Around 90 trainees graduate from histopathology training annually and 50 to 60 of these will be autopsy-competent. Regardless of the cause, there is clearly an imbalance between the supply and demand of autopsy pathologists that means the service is probably only a few years from crisis.

Imaging-based autopsies

We have published a number of articles in the College *Bulletin* over the last six months relating to the emerging and increasing practice of undertaking examinations using post-mortem imaging, mostly CT scanning. It is now well established that CT-based autopsy, especially with the addition of post-mortem angiography, allows an accurate cause of death to be established in around 75% of unselected adult deaths. In some cases, e.g. traumatic deaths, some would argue that post-mortem imaging may actually provide higher quality information than traditional autopsy techniques, although this is controversial. Where a cause of death cannot be established by imaging, its use may allow a more limited or targeted traditional autopsy to be undertaken.

Some religious groups find imaging-based autopsies more culturally acceptable than traditional techniques, but some pathologists are also requesting that imaging is undertaken if they feel that it can add quality and accuracy to their report or results.

Several centres around England are now regularly providing imaging-based autopsies, either by using NHS CT scanners or by entering into commercial partnerships that have provided dedicated scanners for post-mortem imaging. In one area in the Midlands, the local Council pays for anyone to have an imaging-based autopsy if the relatives request it, and if the clinical circumstances are appropriate. Other centres charge a fee, usually between £400 and £500 per case that is either met by the relatives of the deceased or by religious organisations with dedicated funds for this purpose.

In July 2015, a high court judgement ruled that it was the right of anyone to request an imaging-based autopsy for their deceased relative if a traditional autopsy was felt to be culturally or religiously unacceptable. This judgement acknowledged that these cases might progress to a traditional invasive autopsy if imaging alone failed to give a cause of death. It also stated that there should be no additional cost burden on the Coroner, but made no mention of the impact on staffing or the use of limited facilities. There is, nevertheless, now a legal precedent that will make it very difficult to deny the use of post-mortem imaging in the investigation of a non-suspicious death. The Home Office Forensic Pathology Unit and the Forensic Science Regulator are quite clear however that imaging-based autopsy alone is not an acceptable means of investigating suspicious deaths.

One commercial organisation that has four post-mortem imaging centres up and running in the UK aims to introduce a network of centres around England. Some centres use NHS scanners with access to a network of machines in multiple hospitals, whereas some find it increasingly difficult to

gain access to NHS scanners and radiologists who are struggling to keep up with the NHS diagnostic work, and whose working days are already extended and starting to include weekend working.

Commentary

One recent suggestion for addressing the issues around forensic and coronial autopsy provision is to centralise all mortuary and autopsy services around 12 to 15 large regional mortuaries, which are staffed by a team of autopsy pathologists, led by a forensic pathologist, who undertake all autopsy service provision and deliver all autopsy training. A previous document from the Department of Health in 2012 suggested 30 units. Under the recently suggested model, all pathologists would be employed by the NHS and independent forensic partnerships and separately remunerated coronial practice would cease.

To be clear, this model is not in line with Hutton's recommendations which might allow continuing private practice (following a review of the model) but with the added formation of salaried forensic pathology posts. As part of its response to the Hutton Review¹, the British Association in Forensic Medicine found that less than 10% of forensic pathologists would be willing to be employed by NHS trusts, and it questionable whether or not the NHS wants to be responsible for a forensic pathology service.

One key question that must be answered is whether we consider coronial autopsy practice to be core NHS business? On balance, it is my personal opinion that this is the case. A large proportion of coronial autopsies relate to deaths in hospital, and those that don't are often impacted by the care delivered by GPs or community services. For the relatively small proportion that are not directly affected by NHS care in relation to their cause of death, it could be argued that a truly *National* Health Service ought to take an interest in the issues arising from investigating all deaths.

In my opinion however, the same cannot be said of forensic autopsy practice. These cases are clearly in the remit of the Home Office and/or the Ministry of Justice and often have nothing to do with the Department of Health, unless there is an allegation of medical manslaughter in which case there would be a conflict of interest if a forensic pathologist employed by the NHS were to undertake the autopsy. The practice of forensic pathology could very reasonably be kept contractually separate to coronial autopsy work.

If one accepts that coronial autopsy work should be core NHS business, it is difficult to avoid the conclusion therefore that it should be part of the NHS consultant histopathologist's contract. The concept of a regional autopsy service staffed by NHS pathologists paid to undertake coronial autopsy work as part of their NHS contract would therefore make sense. If one were to accept this model, it would also make sense to *undertake* forensic autopsies in the same physical locations. It should still be possible however for the forensic pathologists to have separate contractual arrangements for undertaking their work, whilst enjoying closer working with their NHS colleagues, and a greater involvement in the training of future autopsy pathologists.

The introduction of Medical Examiners (MEs) in 2018, as per the government's recent announcement, could easily be integrated into this system. One begins to visualise a more cohesive system with more obvious linkages and contractual arrangements than currently exist. The proposed relationship between the Medical Examiner and the Coroner is as yet unclear.

Given that well over 90% of autopsies carried out in England are non-forensic coronial cases, it makes little sense to have a forensic pathologist lead a regional autopsy team, given that there are significant differences between coronial and forensic autopsy practice. However, each regional mortuary could have affiliated consulting forensic pathologists with governance oversight from the Home Office or the Ministry of Justice.

The installation of dedicated post-mortem imaging suites would logistically be much more efficient on a regional basis.

Having said all of that, there are considerable practical problems with the concept of a regional mortuary service. Dividing up the 90,000 or so coroner's autopsies carried out annually between 15 mortuaries would equate to each regional centre carrying out around 25 autopsies per day. This

calculation takes no account of increased autopsy numbers predicted to accompany the introduction of medical examiners.

The funding of such a model needs to be carefully assessed. The current level of funding for coronial autopsies would not be sufficient to integrate coronial autopsies into NHS core business. On the basis that a pathologist could do 1 autopsy per PA (if one includes assessment of histology/toxicology, report composition and training where appropriate and necessary), the current level of remuneration from local council budgets would provide £96.80 per PA (the current fee per case). In many regions, the coronial service does not pay for additional histology costs.

The cost to the NHS of a consultant PA (including on costs) is around £240 per week at the top of the scale, and if one adds histology costs in around 20% of cases, the level of funding from local councils or any national budget would have to be in the region of £290 per case to cover the additional cost to the NHS of a regional mortuary under the suggested model. Pathologists' travel expenses should also be taken into account.

There would be considerable additional expense associated with transporting bodies for autopsy from peripheral hospitals to the regional centre, assuming that peripheral body stores still existed for those not requiring an autopsy. Relatives are unlikely to want to travel to a regional centre to view a body, so autopsy cases would also need to be transported back to the local hospital.

The way in which autopsy training is delivered would have to be completely revised. Currently, most trainees regularly undertake autopsy training in their local hospital mortuary. Under this model, it is likely that trainees would have to undertake blocks of training to ensure that valuable training time was not lost by traveling from the local hospital to the regional mortuary on an ad hoc or daily basis.

Conclusions

The findings of the Hutton review include some interesting suggestions about how coronial and forensic autopsy service provision might be reconfigured and one suggested model has been presented here, together with an analysis of its strengths and weaknesses. Whatever the profession's reaction to Hutton, it is clear that coronial autopsy service provision is increasingly fragile, and there appear to be issues relating to employment and retention of forensic pathology trainees, both of which must be addressed. The current unrealistically low level of remuneration for the coronial autopsy presents a major challenge to service provision.

Centralisation and regionalisation of pathology services in general has long been suggested as the solution to all woes, although the benefits of such processes are not always easily demonstrated. The efficient delivery of autopsy services is not the only consideration to be taken into account when planning a reconfiguration, and the needs of relatives of the deceased must be accommodated.

That said, there are considerable potential benefits to be gained from integrating coronial autopsy work into core NHS business including security of future service delivery and improved training opportunities, and regionalisation would allow more a more efficient implementation of post-mortem imaging facilities across the country.

Better workforce planning and coordination with forensic pathology training, with or without the introduction of salaried forensic pathology posts, should allow any issues around retention of trainees to be addressed.

All of these suggestions and conclusions must be accompanied by a comprehensive review of the funding arrangements for both aspects of the autopsy service however. Without that, the service will remain in jeopardy for the foreseeable future.

References

1. A Response to The Hutton Review of Forensic Pathology. *British Association in Forensic Medicine*. http://media.wix.com/ugd/0751ed_f98b08cf48d54b5e9dd8a5bbaaa059f2.pdf

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