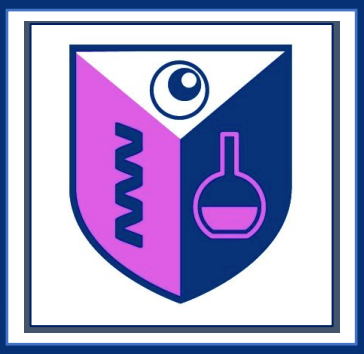

ROYAL COLLEGE OF PHYSICIANS OF IRELAND

A review of the provision of the coronial autopsy service

Faculty of Pathology

Histopathology Standing Committee

January 2022

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The report was compiled with the support of Mairéad Heffron, RCPI Policy Specialist and was approved by the Faculty of Pathology Board in April 2022.

[1] The Histopathology Standing Committee was formerly known as the Histopathology Working Group and re-branded in April 2021

Executive Summary

In Ireland, in cases of sudden, unexplained, or unnatural death (for example suicides, drug overdoses, poisonings, road traffic collisions), occurring either in the community, or in a hospital, the death is reported to the local coroner. In these cases, the coroner may direct an autopsy. An inquest may also be held.

Provision of autopsy service to coroners

Hospital based pathologists (specifically, histopathologists) provide an autopsy service to local coroners. Histopathology is the branch of pathology that deals with diagnosis and study of disease in tissues and organs. Most coroner-directed autopsies (approx. 96% of over 5000 annual coronial autopsies) in Ireland are performed by hospital consultants or by supervised trainees in histopathology.

When there are no suspicious or criminal implications, the coroner requests that the autopsy is performed by a local pathologist, usually in a hospital mortuary. The vast majority of mortuaries are attached to hospitals and are usually resourced by the Health Service Executive (HSE). In cases of suspicious and criminal circumstances, or where a death occurs in state custody or detention, the autopsy is carried out by forensically trained pathologists of the Office of the State Pathologist (OSP).

Hospital histopathologists also conduct autopsies when requested to do so by hospital clinicians (consented autopsies), in order to answer specific clinical questions when the cause of death is known. In practice, these numbers are small compared to the number of coroner-directed autopsies carried out. For example, in one large teaching hospital in Dublin in 2020, over 95% of autopsies performed on hospital patients were directed by the coroner.

Oversight

A number of government departments and entities are involved in the oversight of death investigation and provision of the coronial autopsy service in Ireland.

- The Department of Justice (DOJ) is responsible for policy relating to the coroner service and for resourcing the Dublin District Mortuary and Dublin coroner's service. The Office of the State Pathologist also comes under the remit of the DOJ, as an independent agency within its governance structure.
- Outside of Dublin, local authorities are responsible for financing the coronial autopsy service in their respective areas.
- The Department of Health is ultimately responsible for effective management of health service resources including HSE hospital mortuaries.

The autopsy services provided to the coroner by pathologists are not usually covered by their HSE contract and are paid for separately on a case-by-case basis by the local authority. The local authority (council) is also responsible for financing transport of deceased persons to the hospital. As a result of local authorities being responsible for financing the autopsy service, there may be other adjunct local arrangements in various hospital mortuaries around the country. One exception to this structure is Dublin District Mortuary, which is managed by the Dublin Coroner and resourced by the Department of Justice.

Histopathology Standing Committee – Survey

The Faculty of Pathology is the national professional and training body for pathology in Ireland, working to ensure the highest standards in laboratory medicine. The Histopathology Standing Committee (HSC) within the Faculty, conducted surveys in 2020 to understand the views of trainees and consultants in histopathology in relation to the coronial autopsy service. The survey also set out to assess mortuary facilities around the country, in the wake of the COVID-19 pandemic. The HSC was concerned that autopsy was not considered attractive to its trainees and members, and that as a result there may be a future shortage of histopathologists trained in, or willing to conduct coronial autopsies.

The surveys revealed that:

- More than a quarter of consultants surveyed did not do coronial autopsies, citing reasons such as lack of time due to surgical pathology commitment, difference in skillset and concerns about inquests.
- Most consultants felt the current coronial autopsy service is not sustainable and that a restructuring is needed. The concept of a centralized or regionalized service with dedicated autopsy specialists was desirable.
- Some trainees and consultants felt that the autopsy exam for Irish trained histopathologists (Certificate in Higher Autopsy Training -CHAT), which is an exam of the Royal College of Pathologists (UK) should not be mandatory (30% of consultants and 62% of trainees).
- Just over half of trainees (53%) said they do not like coronial autopsy work and 42% said they do not see themselves doing coronial autopsy work in the future.
- There are challenges in provision of specialised autopsy in paediatric and perinatal cases. This will be addressed in the near future with appointments in perinatal pathology and in the provision of specialised posts.
- The COVID-19 pandemic has also highlighted the lack of adequate mortuary facilities to deal with highly infectious autopsy cases.

Recommendations

In response to the survey findings, the HSC recommends the following:

Make autopsy work more manageable within the hospital pathologist's normal work environment and commitments

1. Development of autopsy as a subspecialty, with appropriate training and staffing.
2. Autopsy to be developed as a 'special interest' within histopathology departments, leading to a pool of interested consultants, thus enabling the development of a regionalised service (main training centre supported by regional hospitals) in time (see Appendix D for suggested collaborating hospitals/groups).
3. Protected time for conduct of autopsy and inquest responsibilities.
4. Appropriate levels of dedicated secretarial support.
5. Inclusion of autopsy in consultant histopathologist job descriptions with specific outlines of the expected commitment in each post.

Deliver appropriate and responsive autopsy training and exams

6. Ensure training and exams are responsive to the needs of the Coronial autopsy system.

7. Ensure ongoing feedback to the Histopathology Speciality Training Committee (STC) and trainers to monitor issues around training needs including:
    a. Approach to CHAT exam.
    b. Appropriate rostering of autopsy service within trainee rosters.
    c. Ensure ongoing incorporation of training needs around autopsy into current study day programmes.

Ensure a robust and sustainable future death investigation system

8. Ensure that autopsy has a formal standing through an Irish Human Tissue Act.

9. Begin evaluation of local mortuary facilities in order to start the process with the HSE which will result in ensuring that infrastructure and facilities nationwide are of good standard, fit for purpose and that all have access to appropriate laboratory, secretarial and social service system support.

10. Consider a change to the current system of death investigation (in line with proposals from the 2000 Review of the Coroner Service and by the 2021 research report published by the Irish Council for Civil Liberties[2]).
    - Initially a hub and spoke model, where a group of collaborating hospitals includes a university teaching hospital. This opens up rotation possibilities for trainees to get more autopsy exposure and allows for possibility of better communication between practicing autopsy pathologists, improved standards and options for peer review and subsequently improved training.

[2] Death Investigation, Coroners' Inquests and the Rights of the Bereaved by the Irish Council for Civil Liberties published April 2021 https://www.iccl.ie/wp-content/uploads/2021/04/ICCL-Death-Investigations-Coroners-Inquests-the-Rights-of-the-Bereaved.pdf

- Ultimately, this could evolve into a regionalised autopsy service where the main hospital base is a centre of excellence and works closely with the forensic pathology service.
- Such collaborative groups would ensure access on a regional basis to specialist expertise in neuropathology, perinatal and paediatric pathology and allow the development of radiology support services.

Ensure availability of specialist autopsy expertise

11. Ensure sufficient perinatal and paediatric pathology expertise/posts so that each region is appropriately resourced, and that appropriate referral of cases can be made.
12. Establish a clear protocol for perinatal and paediatric cases to avoid inappropriate referrals to the forensic pathology service.

Next steps towards implementation

- Circulate this proposal to histopathology consultants nationwide
- Establish a discourse with stakeholders (HSE, Department of Justice , coroners, county councils, Faculty of Pathology) with the aim of :
  - Agreeing collaborating hospital groups and function of each hospital within these groups
  - Appointing additional consultant pathologists with dedicated autopsy sessions
  - Sourcing appropriate funding.

1. Introduction

The Faculty of Pathology, established in 1981, is one of six postgraduate specialist training bodies based in the Royal College of Physicians of Ireland (RCPI). The Faculty has over 300 Fellows, who are experienced consultant pathologists and leading experts in their field. The Faculty is the national professional and training body for pathology in Ireland, working to ensure the highest standards in laboratory medicine. The Faculty is accredited by the Medical Council of Ireland to deliver postgraduate specialist training in six pathology specialties.

Histopathology is one of these six specialties, and the Faculty delivers postgraduate training at basic specialist level (BST) and higher specialist level (HST). On successful completion of HST, a histopathologist is eligible for registration on the Specialist Register of the Medical Council and can apply for consultant posts. Histopathologists diagnose and study all forms of disease in tissues and organs, including cancer. They also perform autopsies to determine cause of death.

Within the Faculty of Pathology, the Histopathology Standing Committee (HSC) provides assistance and advice pertaining to histopathology to the Board of the Faculty. It reports to the Dean of the Faculty.

In 2019, the HSC discussed the issue of the coronial autopsy service, noting a concern among members that there would be a shortage of histopathologists willing to perform coronial autopsies in the future. There were concerns that among trainees, autopsy was not considered as attractive as work in other histopathology areas such as cancer diagnoses. Some hospitals, as well as individual consultants had opted out of performing coronial autopsy work and this was a concern.

The HSC initiated this project to generate data on trainees and consultants' attitudes and experience of coronial autopsy, to understand whether their concerns were borne out in reality, and if so, to understand what potential solutions may exist which would support the vital work of the coronial autopsy service in the long term.

To this end, the HSC carried out the following

- An online survey of trainees
- An online survey of consultants
- An email survey of mortuary facilities throughout the country

2. Coronial Autopsies in Ireland - Background and Statistics

Death investigation is the term given to the system in place to determine cause and/or circumstances of death, in all deaths that are not certified as natural causes or where the medical cause of death is not known, or where there is not a doctor in a position to certify the medical cause.

Jurisdictions vary in how the death investigation system is structured. In some jurisdictions, such as England and Wales, a coroner has responsibility for the death investigation (either a medical doctor or a lawyer, depending on the jurisdiction) while others, such as North America, have a medical examiner system, whereby a medically qualified doctor (usually a forensic pathologist) carries responsibilities often divided between a coroner and a forensic pathologist in a coroner or coronial system.[3] In other parts of Europe, death investigation is led by a legal person such as a judge/prosecutor/procurator fiscal (Scotland) and the medical expertise of pathologists or legal medicine specialists is heavily relied on.

The Coronial Service

Ireland operates a coronial system of death investigation which is unique to this country. What is referred to as the 'Coroner Service' is a network of independent coroners located throughout the country. There is also a Coroner's Society of Ireland, which plays a role in representing the views of coroners as a body.[4]

Coroners are barristers/solicitors or registered medical practitioners, of at least 5 years standing, and are appointed by either the Local Authority (LA), or in the case of the Dublin District Coroner, by the Minister for Justice.

A coroner's core function is to investigate sudden and unexplained deaths so that a death certificate can be issued.[5] A coroner may request that an autopsy is carried out as part of this process. The autopsy is carried out by a trained histopathologist or forensic pathologist, depending on the circumstances surrounding the death.

Coronial autopsies – annual figures

Usually, a histopathologist carries out autopsies only in cases where there are no suspicious circumstances around the death, whereas forensic pathologists, who are trained in anatomical pathology, histopathology, and the forensic interpretation of injuries, carry out autopsies in cases where there are unusual/criminal/suspicious circumstances surrounding the death.[6]

Most coroner-directed autopsies (approx. 96%) carried out in Ireland are done by hospital consultant histopathologists or by supervised trainees in histopathology. This is the case for sudden, or unexplained death, in the absence of any suspicious circumstances. These are referred to colloquially as "coronial autopsies". An inquest may also be held in some cases, at which the histopathologist may be required to give evidence.

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[3] http://www.justice.ie/en/JELR/RCPI_Review_of_the_Office_of_the_State_Pathologist.pdf/Files/RCPI_Review_of_the_Office_of_the_State_Pathologist.pdf

[4] http://www.justice.ie/en/JELR/Pages/SP18000297

[5] http://www.coroners.ie/

[6] OSP website. http://www.justice.ie/en/JELR/Pages/office_of_the_state_pathologist

In cases of suspicious and criminal circumstances, or where a death occurs in state custody or detention, the autopsy is carried out by forensically trained pathologists of the Office of the State Pathologist (OSP). These cases are known colloquially as “state cases”. Such autopsies comprise approximately 3% of the total coroner-directed autopsies done annually in the Republic of Ireland.

The remaining 1% of coroner-directed autopsies are non-suspicious autopsies carried out by pathologists of the OSP. In 2019, the majority of non-suspicious autopsy examinations undertaken by the OSP were performed by an acting deputy state pathologist as part of an agreed proleptic training programme, which was completed in March 2020.[7]

The chart below (figure 1) shows the annual number of coronial autopsies carried out in Ireland. The figures include state autopsies performed by the OSP, with the figures disaggregated here from 2015 onwards (from OSP annual reports).

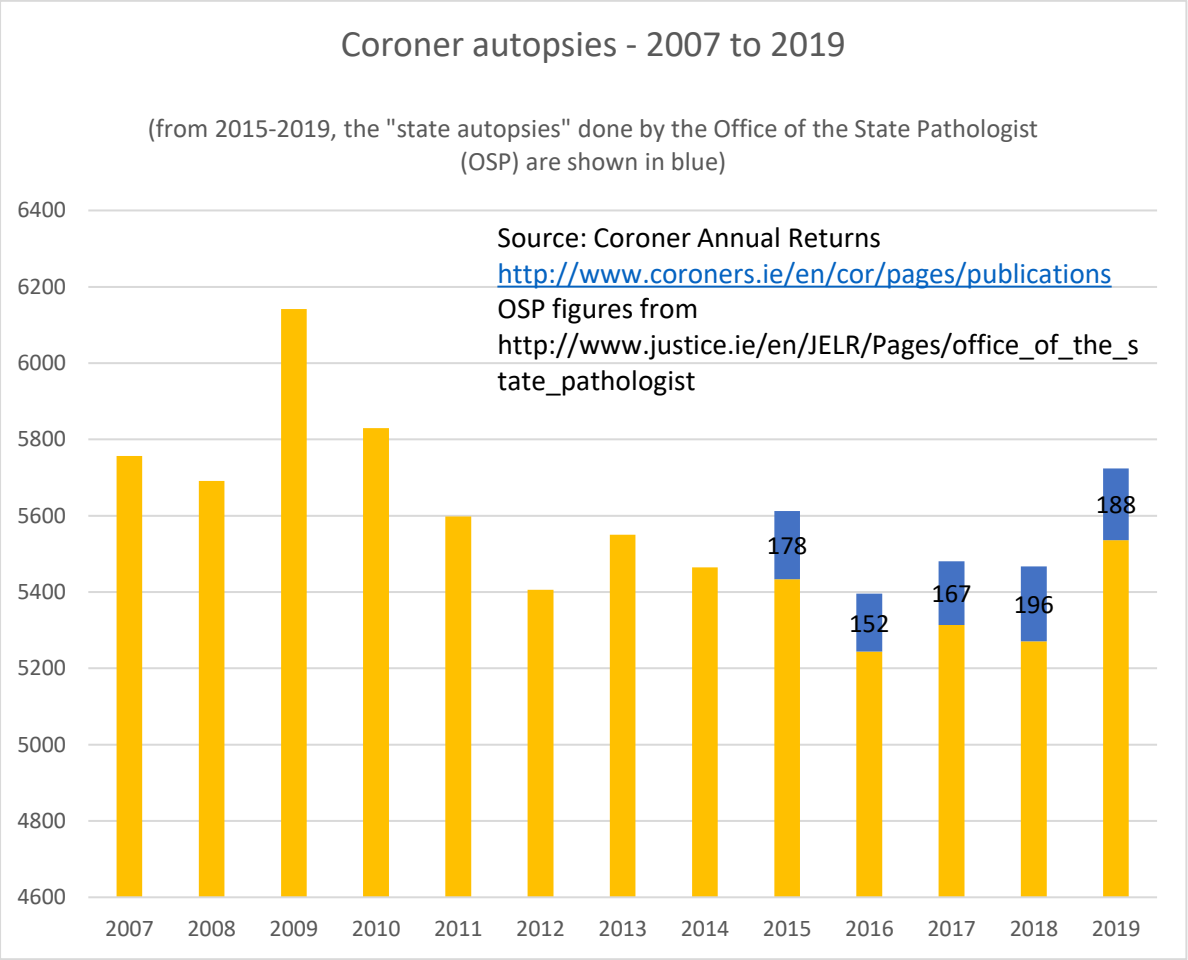

Figure 1: Coronial Autopsies- Annual Figures

Looking at the breakdown of autopsies by coroner areas, Dublin has the highest number by a significant amount. In 2019, the 1,895 coronial autopsies in the Dublin Coroner’s area represented

[7] http://www.justice.ie/en/JELR/Pages/office_of_the_state_pathologist (OSP Annual Report)

just over a third of all autopsies in that year (33%).

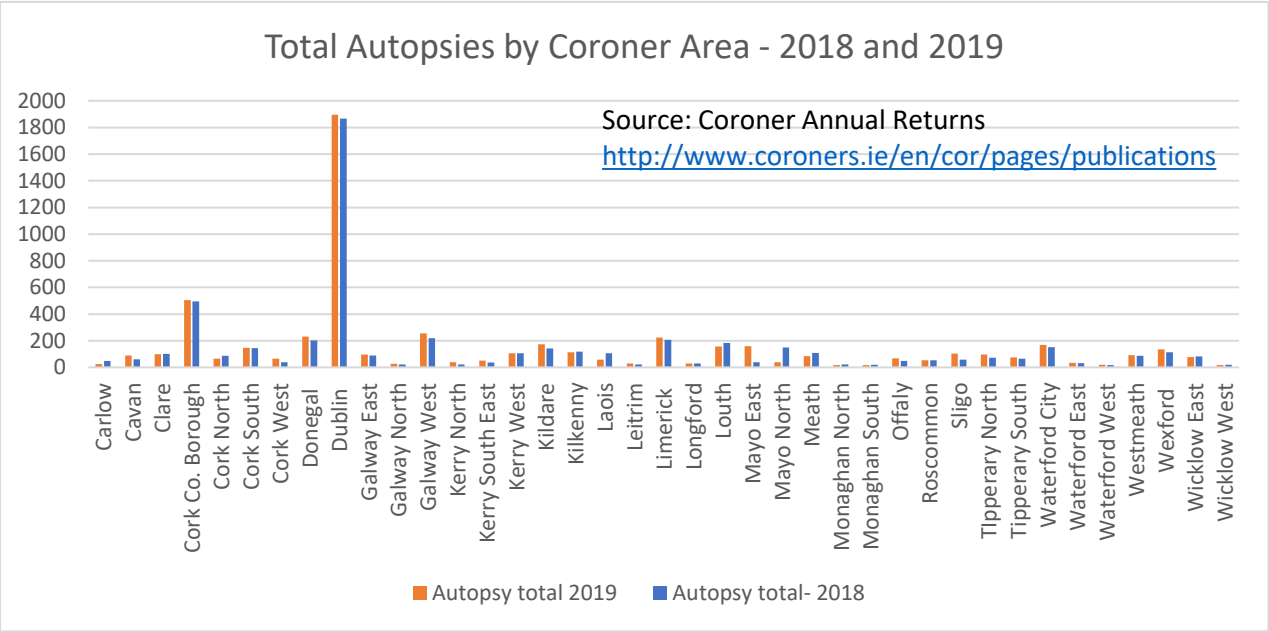

Figure 2: Autopsies by Coroner area

Removing Dublin from the chart, we have the following breakdown by Coroner Area:

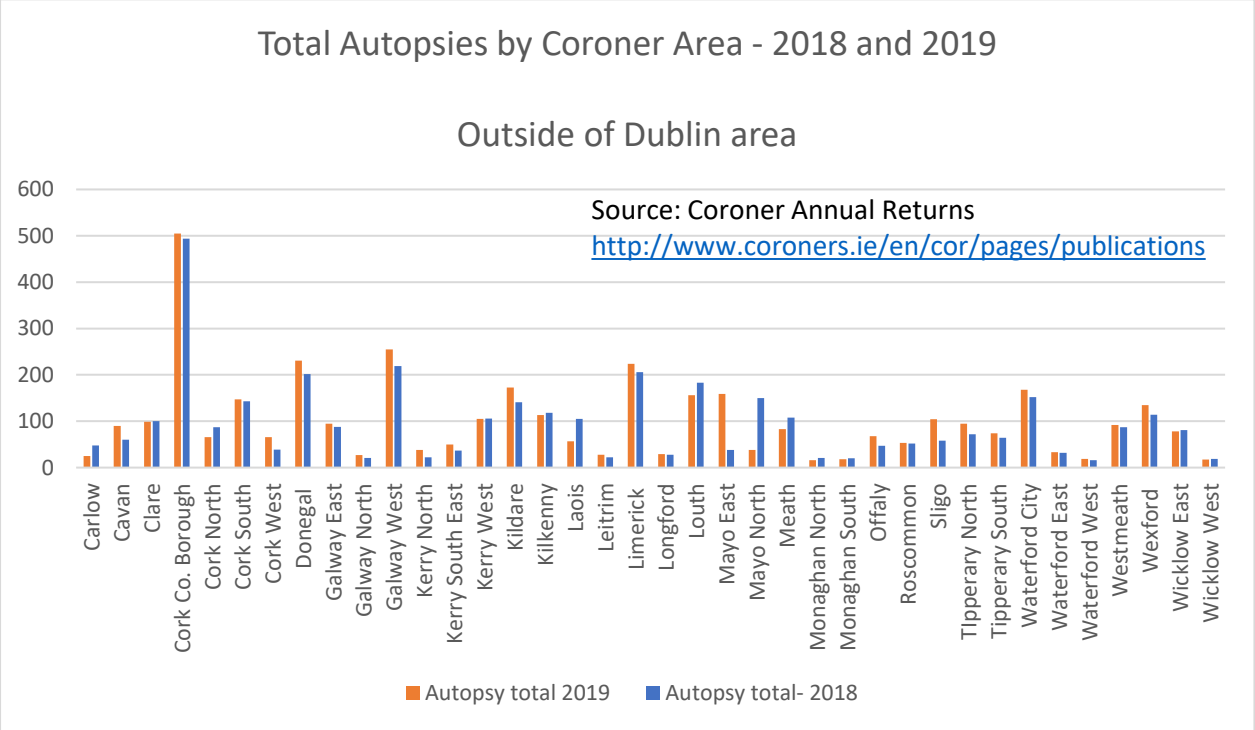

Figure 3: Autopsies by Coroner area (outside of Dublin)

Departmental responsibilities and funding of coronial autopsy

The Department of Justice has responsibility for the policy and governing legislation of the State's Coroner Service. It is also responsible for the funding and resourcing of the Dublin District Mortuary and Dublin District Coroner.

Elsewhere, local authorities fund the operation of the coronial service in their district, including the transportation of bodies from the community to the mortuary, if required. Departmental oversight and budgets for local authorities are through the Department of Housing, Local Government and Heritage. There is no central funding provided to local authorities for the financing of the coronial service and the service is financed from their own resources.[8]

The fees and expenses payable to the person who performs the autopsy, assists in the autopsy or for special laboratory examinations (histological, microbiological, toxicological, and biochemical tests) are set by legislation.[9] The histopathologist receives a fee of €321.40 for performing nonsuspicious coroner-directed autopsies with a report to the coroner. Where attendance at the inquest is also required, the fee payable is €535.68 (which includes the original autopsy fee). [10]

The Department of Health is ultimately responsible for effective management of health service resources, including HSE hospital mortuaries and their staff.

Observations from the RCPI review of the Office of the State Pathologist

A 2019 Review of the Office of the State Pathologist conducted by RCPI for the Department of Justice reported several observations relating to the other coronial autopsies (non "state cases"). [3]

The review was tasked with examining the functioning of the Office of the State Pathologist only. For this reason, the observations below were not included in the main body of the report, but the steering group for the review felt it was important to note these observations, which were included in an appendix to the review.

[8] https://www.housing.gov.ie/sites/default/files/publications/files/vfm_report_no_31_coroner_service_in_local_authorities.pdf

[9] Not always expensed or paid for

[10] Statutory Instruments. S.I. No. 155 of 2009. Coroners Act 1962 (Fees and Expenses) Regulations 2009

Observations relating to death investigation and autopsy

This review has been focused on the OSP and a review of the coronial autopsy system was not within the terms of reference. However, there are several observations which the steering group found of interest, and pertinent to record for any broader future work on the death investigation system or coronial system in Ireland. These recommendations are not 'findings' in any sense; there are simply points of interest that may merit further exploration in the future.

- Most coroner-ordered autopsies (approx. 96%) carried out in Ireland are done by HSE or Hospital Consultant Histopathologists or supervised trainees in Histopathology (sudden, or unexplained death, in the absence of any suspicious circumstances).
- This work is carried out as independent work outside of the consultant's HSE contract or Hospital contract. That is, it is not part of the contractual commitment to provide this service to the coroner (although in practice most do provide this service).
- This differs from the contractual commitment to perform hospital autopsy work (not directed by the coroner) ordered by the hospital for clinical reasons, which would form part of a consultant's contractual commitment (clinical duties).
- Similarly, the pathologists based at the OSP (apart from the current Acting Deputy) are not contractually obliged to perform coroner-ordered autopsies where the circumstances are not suspicious (non 'state cases'). The Acting Deputy is only obliged to perform these for the duration of her training contract.
- Autopsy competency is a mandatory component of histopathology training in Ireland. However, in some jurisdictions it is an optional competency. In some cases, this means that trainees are choosing to opt out of autopsy competency (UK, Australia).[1 2 3]
- In many jurisdictions, the national forensic pathology service carries out most of the coronial autopsy work in addition to homicides and suspicious cases. However, the OSP in Ireland would not have the mandate or the capacity to respond to any additional coronial work under the current service delivery model or staffing levels.
- While there are divided views as the usefulness of Post-Mortem CT scanning, it may be of benefit primarily in the area of non-suspicious coroner-directed post-mortems. More analysis of how this technology could be used in the future in death investigation may be useful. Factors such as cost of equipment, additional training would have to be examined.

Figure 4: Additional Observations from the RCPI Review of the Office of the State Pathologist (2019)[11]

[11] HSC notes on these observations: Regarding bullet point three, the HSC would like to clarify that consented autopsies are requested by the clinicians ' not ordered by the hospital. While under the last bullet point where post-mortem CT scanning is mentioned, it is more appropriate to consider postmortem radiology techniques, rather than only CT scanning.

3. Training in autopsy

Autopsy is one of the pillars of histopathology practice in Ireland for decades and as such, competency in autopsy has been a core element of histopathology training in Ireland at both basic and higher specialist training.

The current specialist training requires that trainees perform ten adult autopsies over the course of basic specialist training (BST) while the higher specialist training (HST) curriculum now (requires that trainees perform 50 adult autopsies, thus an average of 15 per year (reduced from 100 in July 2021). In addition, it is a requirement of the curriculum that a trainee performs one directly observed autopsy (DOPs). Trainees are also required to attend 20 neuropathology sessions during their training programme. It is desirable that trainees observe 5 paediatric autopsies during their training programme.

These curriculum requirements are reviewed annually by the members of the histopathology specialty training committee (STC). Currently, the curriculum is undergoing transformation to an outcome-based education (OBE) approach, which focuses on competency and quality rather than quantity and thus the need for the completion of a specified number of autopsies will no longer be a requirement.

Training in autopsy is undertaken at most hospitals in the country involved in BST and HST training. Hospital pathologists no longer undertake autopsy at Cork University Hospital (CUH), St James's Hospital (SJH), Dublin and the Mater Misericordiae University Hospital (MMUH), Dublin and thus autopsy training is focused in other hospitals within the training hubs.

Study days have been an integral part of training with all areas covered, including autopsy. In recent years, study days with a focus on inquest training in particular have been facilitated by RCPI. Specific BST study days are being run with autopsy part of the curriculum. Training and progress in all aspects of histopathology including autopsy is discussed by trainees with their consultant trainers at least quarterly and also with the National Specialty Director (NSD) at their end of year assessment.

Obtaining the Certificate in Higher Autopsy Training (CHAT) from the Royal College of Pathologists, UK (RCPath) is required for our histopathology trainees to obtain their Certificate of Satisfactory Completion of Specialist Training (CSCST). Before the introduction of the CHAT by the RCPath in 2012, autopsy competency was examined as part of the FRCPath (Fellowship of the RCPath) Part2. The uncoupling of the autopsy exam from the final FRCPath examination has allowed trainees to undertake this exam at an earlier stage. It consists of practical examination which is done in the candidate's choice of mortuary. This is done with an internal and an external examiner. The second part is an objective structured practical examination (OSPE) which is done in the Royal College of Pathologists in London. This has since gone online after the COVID-19 pandemic. The histopathology STC has several histopathologists who are now CHAT examiners for the first part of the exam. The STC has established close links with the lead pathologist for the CHAT examination for the RCPath (Prof K Suvarna) who is also delivering talks as part of the RCPI histopathology study day programme.

Training in autopsy in the UK is mandatory in the early years of histopathology training and some minimum requirements have to be met before progression onwards. Undertaking the CHAT examination is optional for UK trainees.

Training in autopsy remains part of the American Boards examination in Anatomical Pathology.

Training in autopsy in Canada is also mandatory and experience in both general adult autopsy and forensic autopsy forms a core part of their curriculum. Autopsy is examined within their pathology exams.

As mentioned above, currently three large teaching hospitals (SJH, MMUH and CUH) do not incorporate autopsy work in the normal daily departmental work. Special arrangements for training are in place for trainees based in CUH. The situation in Dublin is relatively recent and ad hoc arrangements only exist. This is a serious situation for the affected trainees and highlights the need for this report.

From a training perspective, it is important that NCHDs working in the Mater and St James' Hospitals have appropriate training and support for their exams. The Histopathology Specialty Training Committee in the Faculty of Pathology oversees training and works with trainers and trainees when informed of training issues. Trainees in Cork University Hospital (CUH), have established links and arrangements are in place for autopsy training. Dublin units should be encouraged to develop similar arrangements for trainees during their rotations to these departments. In addition, support for experience leading up to and for the practical examination will be required off site for exam candidates working in these units. The Histopathlogy STC is aware of the issues in autopsy training and these are borne in mind when arranging rotations in Dublin in particular.

4. Mortuary Facilities - Current Situation

The HSC drafted a set of questions relating to mortuary facilities. These questions were sent to lead autopsy consultants in all mortuaries in the country. A copy of the questions is in Appendix A.

In total 28 facilities received the questions, and 12 responses were received. This represents a response rate of 43%.

Location

The following facilities provided responses:

1. Letterkenny University Hospital
2. Our Lady of Lourdes Hospital, Drogheda
3. Sligo University Hospital
4. St Vincent's University Hospital
5. Dublin City Mortuary/Dublin District Mortuary (DDM)
6. St Columcille's Hospital, Loughlinstown, Co Dublin
7. Mayo University Hospital
8. University Hospital Galway
9. Children's Health Ireland at Crumlin (Separate mortuary in Temple Street but currently cases referred to Crumlin in the absence of onsite consultant)
10. Tallaght University Hospital
11. Cork University Hospital
12. University hospital Kerry

Four facilities indicated there was a proposal to regionalize provision of autopsy services.

All facilities that responded indicated they performed coronial autopsies.

Staff

- 11 had a mortuary manager
- Ten had an anatomical pathology technician (APT) available at weekends and out of hours (including one informal arrangement)
- In most (7 of 12) of the departments in which the lead consultant was based, all consultants of that department conducted autopsy.
- Six units had trainees/rotations of trainees. In these units, the proportion of trainees doing autopsy under consultant supervision varied.
    - One said all autopsies were done by trainees
    - Two said most autopsies were done by trainees
    - Two said a minority of autopsies were done by trainees
    - In one unit, no trainees did autopsy.

Additional services

- Most mortuaries did not have dedicated secretarial support. Instead, most indicated secretarial support was provided through the main histopathology laboratory

- Ten had onsite availability for autopsy biochemistry and microbiology.
- Nine indicated they had onsite availability for autopsy imaging.[12]
- Eight said they there was a radiologist on site who could report the autopsy imaging.
- Seven said the mortuary was on NIMIS (National Integrated Medical Imaging System).
- Four had a formal arrangement with the radiology department in the hospital (where the mortuary is located) for carrying out the autopsy radiology, a further two had an informal arrangement.
- Nine centres said that histology was performed on-site.

Facilities

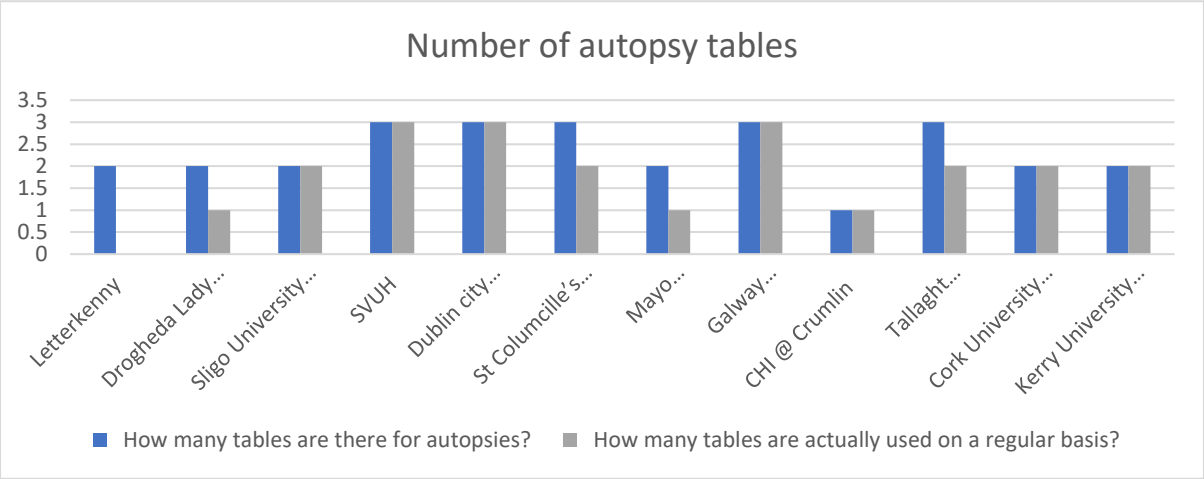

Figure 5: Autopsy tables

- All respondents said they had adequate refrigeration capacity in the mortuary for their regional workload requirements.
- All respondents said they had adequate autopsy equipment.
- Ten respondents answered the question on staff facilities. All ten said that there was a separate changing area for staff, toilet, and shower facilities. [13]
- Most (nine of ten valid answers[14]) said there was an office facility for paperwork, phone calls, microscopy etc., one mortuary said, "not specifically for the doctors".
- All (ten of ten valid answers) said there was a facility for families to view/identify their deceased relatives.
- Most (of ten valid answers) said they had full availability of protective clothing.
- On whether there were isolation facilities for infectious cases (hazard group 3,4)
    - Only two of ten valid responses answered "yes" to this question

[12] This does not reflect the experience of HSC members. In practice availability is often conditional and delays autopsies

[13] It should be noted that responses were not received from all mortuaries. Also, notwithstanding the responses to the survey, it is the experience of HSC members is that many mortuaries, including some which provided responses do not have adequate changing facilities

[14] 2 responses returned with pages missing

    - One mortuary said that it has full room ventilation allowing for hazard group 3 infections, while a forensic room is isolated and could be used for hazard group 4 (the response noted that mostly autopsy should be avoided in those cases.)
- On ventilation:
    - Four said they had downdraft ventilation only
    - Three said they had full room downdraft

5. Survey of Consultant Pathologists

The HSC prepared questions on autopsy for consultant pathologists. The survey questions were uploaded to the Qualtrics platform, and a link to the survey was circulated to all consultant Histopathologists registered with the Faculty of Pathology. A copy of the survey questions is included in Appendix B.

A total of 52 consultants responded to the survey, of whom 49 were happy to have their data included in the report.

Profiles

Time in post	**Percentage of respondents**
<5 years in post	24%
5-10 years	24%
10-20 years	28%
>20 years	22%

- 16% work in a level 3 hospital, 71% work in a university hospital, 12% other (CHI, office of the state pathologist).
- Most (73%) carried out coronial autopsies.
- 89% of those surveyed carry out consented hospital cases.
- Most common reason for autopsy was BID ('brought in dead') from community/ death in the community.
- The numbers of cases per centre vary with a range from 30 to 650 cases per year, the mean being 75 cases per centre per year. The wide range is significant, reflecting an uneven workload.

Sites

People were asked at how many separate sites they carried out autopsy

The majority carried out autopsy at just one site. This was the case for 44 of 52 respondents.

Facilities at site

The table below shows the percentage of respondents who said the facilities at site were adequate. The proportion who said the mortuary equipment (e.g. tables, ventilation) were adequate was high- reflecting the responses of the lead consultant survey. A smaller proportion said that clerical support was adequate (41% below). Most indicated that this support was provided through the main histopathology laboratory.

Table 1 : Facilities at site, consultant survey

1 - Number of tables	88.89%
1 - Number of dissecting stations	83.33%
1 - Ventilation	86.11%
1 - Changing facilities	69.44%
1 - Refrigeration for bodies	66.67%
1 - Doctors' office	61.11%
1 - Clerical support	41.67%
1 - Capacity for infectious disease cases	25.00%

Main motivation for doing coroner autopsies

Some of the answers given to this question included:

- “Interest”.
- “serve the family involved”.
- “part of the job”.
- “interesting work, maintain skills, remuneration”.
- “professional and moral obligation”.

Discussion/meetings with colleagues

- 58.33% take part in morbidity and mortality meetings.
- 95.24% find these meetings were either moderately, very, or extremely useful.

Coronial autopsies on cases from other hospitals

- 41.67% carry out coronial autopsies on cases from other hospitals.
- 80% receive the case notes from the other hospital 'always' or 'most of the time'.

Inquests

- When supervising an NCHD (non- consultant hospital doctor) in doing a coronial autopsy, it is usually the consultant or both together who prepare the deposition for inquest.
- When asked who attends the inquest
    - 14.29% said the consultant and NCHD attend together
    - 19.05% said NCHD only
    - 66.67% said Consultant only

Reducing the autopsy burden

The graph below shows the answers to the question: "What factors in your opinion reduce the autopsy burden?"

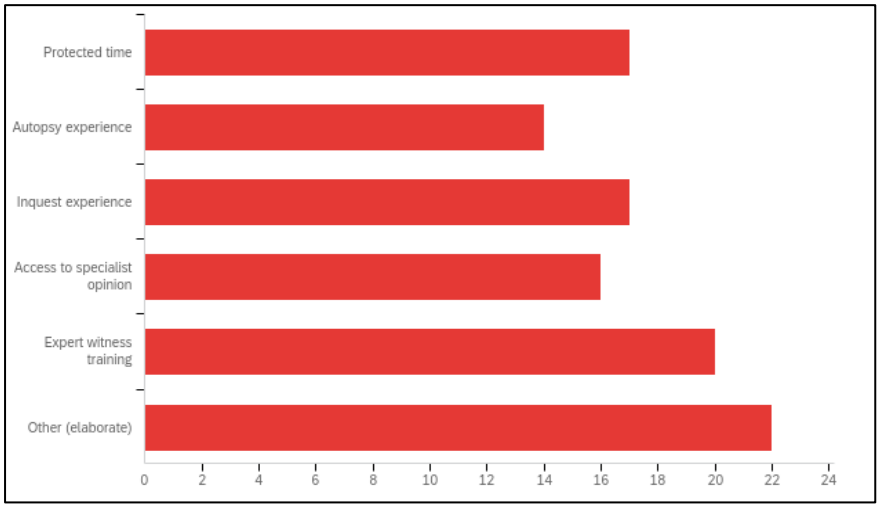

Figure 6: What factors in your opinion reduce the autopsy burden?

Examples of issues mentioned under 'other' was

- "adequate staffing".
- "emotional burden".
- "better selection of cases".
- "more time for autopsy".

Those who do not do coronial autopsy - why not?

The graph below shows answers to the question: "What factors contribute to your decision not to do coronial autopsies?" This question was visible only to those who indicated they did not do coronial autopsy. Most frequently mentioned factors were:

- Lack of time due to surgical pathology commitments.

- Concerns about medico legal environment.
- Skillset has changed.
- Inquests- concerns about inquest attendance and negative experiences of inquest in the past.

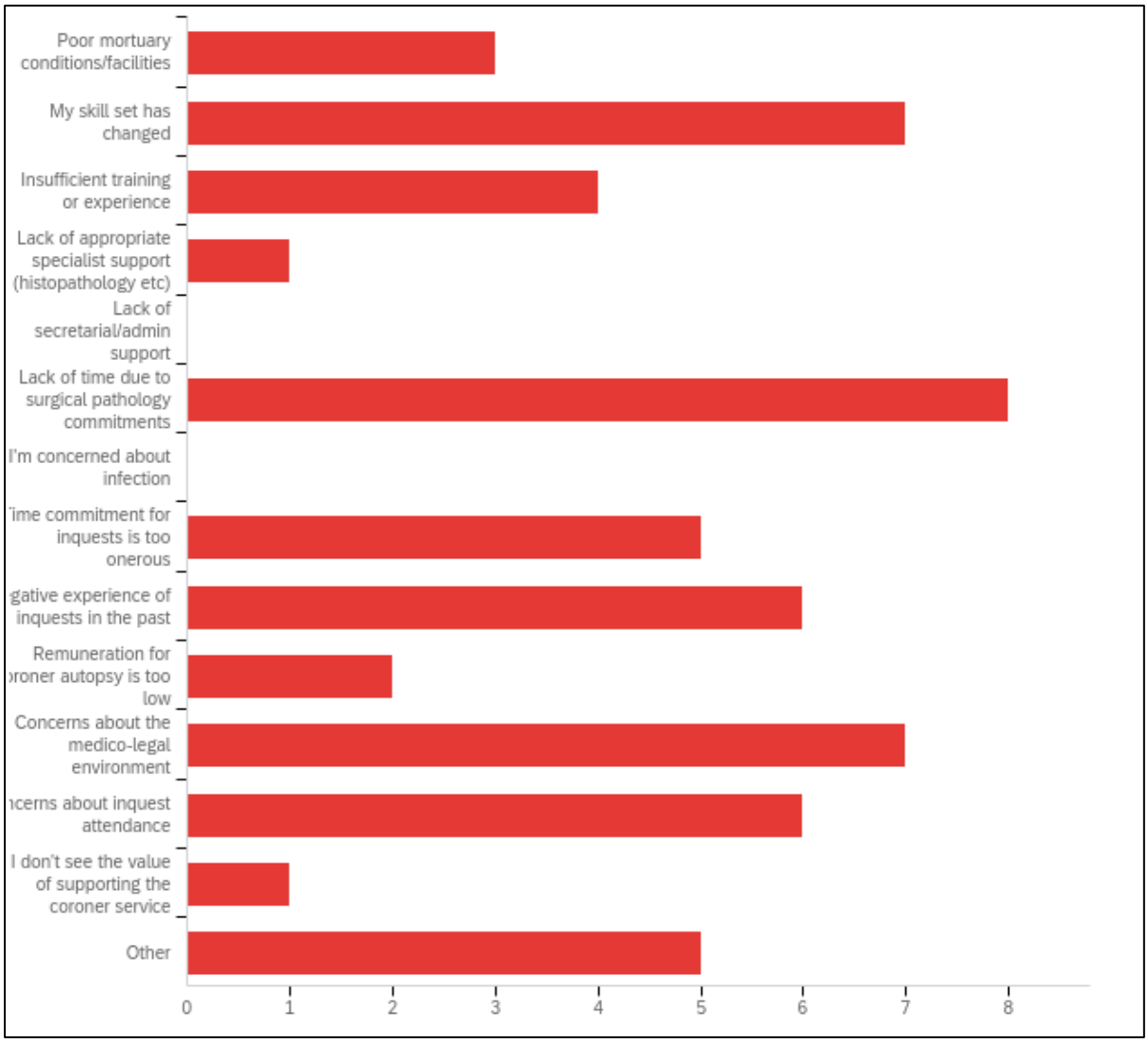

Figure 7 : What factors contribute to your decision not to do coronial autopsies?

Those who said they did not perform coronial autopsy were asked what factors would encourage them to carry out coronial autopsy. Answers are shown in the graph below.

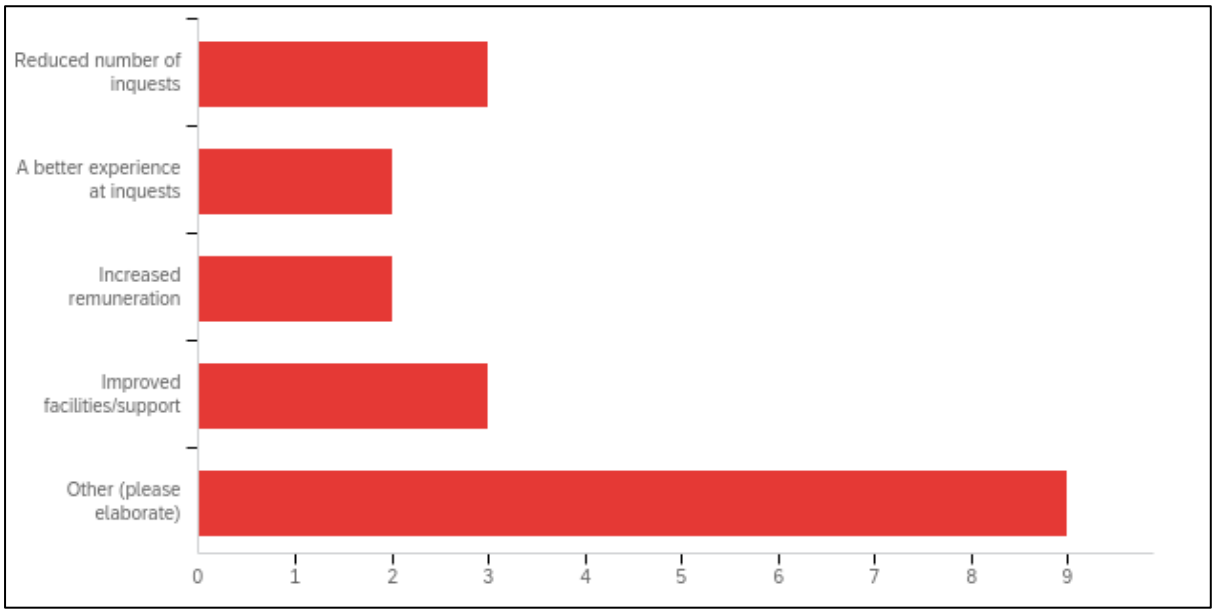

Figure 8: What factors would encourage you to carry out coronial autopsy?

Under 'Other', a number said none:

- "None. Coroner's service should be restructured as medical examiner of death and specialisation as such in post mortem practice".
- "I would not be willing to do them under any circumstances".

Other comments included:

- "if they were properly resourced and were an organised structured part of a hospital pathologist's contract".
- "more time on rota to do the PM and the report".

Model for coronial autopsy

51.02% answered that non-forensic coronial autopsies should be undertaken by full-time regional autopsy pathologists (medical examiners) working alongside state service. See graph below

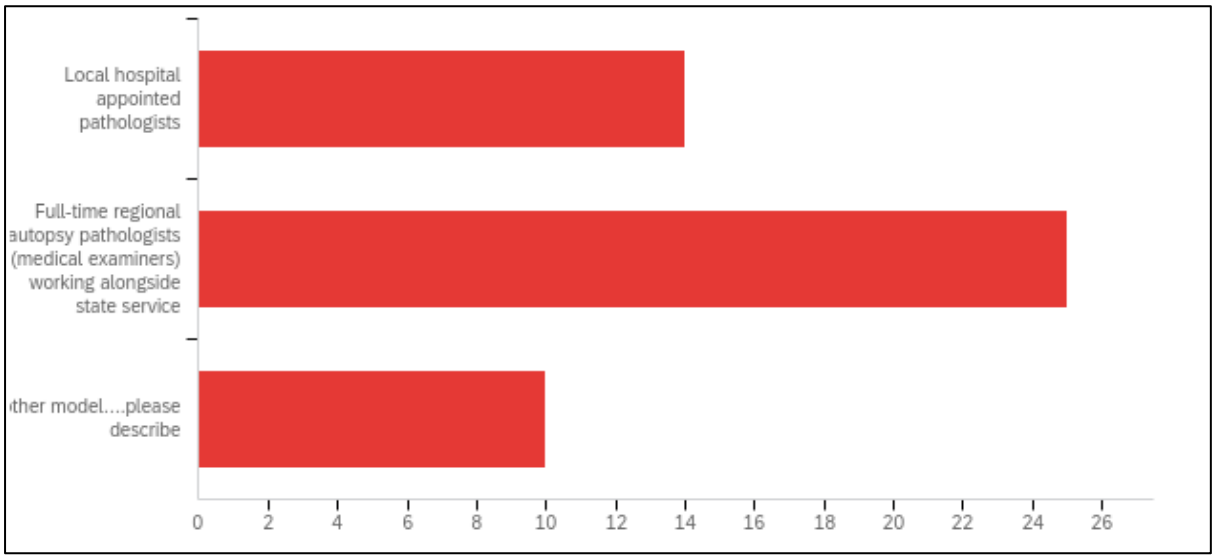

Figure 9: Views on a model for coronial autopsy

- 38.78% felt a hospital pathologist should not be required to do coronial autopsies and 28.57% answered 'probably not'.

Payment

- Majority said current payment for the coronial autopsy was inadequate (60%).
- However most, said that an increase in payment would not encourage pathologists to restart autopsy practice (suggesting that pay is not the only or strongest factor at play).

Autopsy service

Respondents were asked whether they felt that the coroner service was undervalued. 77.55% felt that this was the case. Comments provided included:

- "an essential service provided well by a small group of doctors".
- "information gleaned from autopsies is not sufficiently being fed back through MDTs".
- "in a hospital setting, where the priority is diagnoses in living individuals (as it should be) that autopsy work gets deprioritised and left until last. It is almost an afterthought."
- "If properly structured, the coronial autopsy service could provide a basis for histopathology gross anatomy, specialised autopsy and forensic training and could contribute significantly to public health and epidemiology in this country."
- "Chaotic arrangements, pathology time markedly undervalued, highly variable coroner training and practice all suggest a Cinderella service in need of a program of professional restructuring."

Most feel the current service is not sustainable (42% definitely not, 38% probably not).

Most felt the service should be restructured (77%).

Comments on how it should be restructured included the following suggestions

- A regionalized or centralized service.

- Dedicated autopsy specialists.
- Fulltime coroners.
- Consideration of a different system of death investigation (e.g., medical examiner).

Specialized autopsy

Hazardous autopsy

A minority of consultants said they had training in infectious disease autopsy (28%) while just over half (53%) said that, with appropriate PPE and facilities, they would be willing to conduct coronial autopsies in cases of communicable disease such as COVID-19.

Perinatal/Paediatric autopsy

Respondents were asked about the availability of perinatal autopsy expertise and paediatric autopsy expertise in their area:

- Only 12% said they perform (or were willing to perform perinatal autopsies).
- Only 10% said they perform (or were willing to perform paediatric autopsies).

This reflects a broader shortage of perinatal and paediatric pathology expertise which has been highlighted in various reports.[3,15]

Training

A majority felt that autopsy was an important part of the training of the histopathologist who will be working in Ireland (60% said extremely, or very important). See graph below

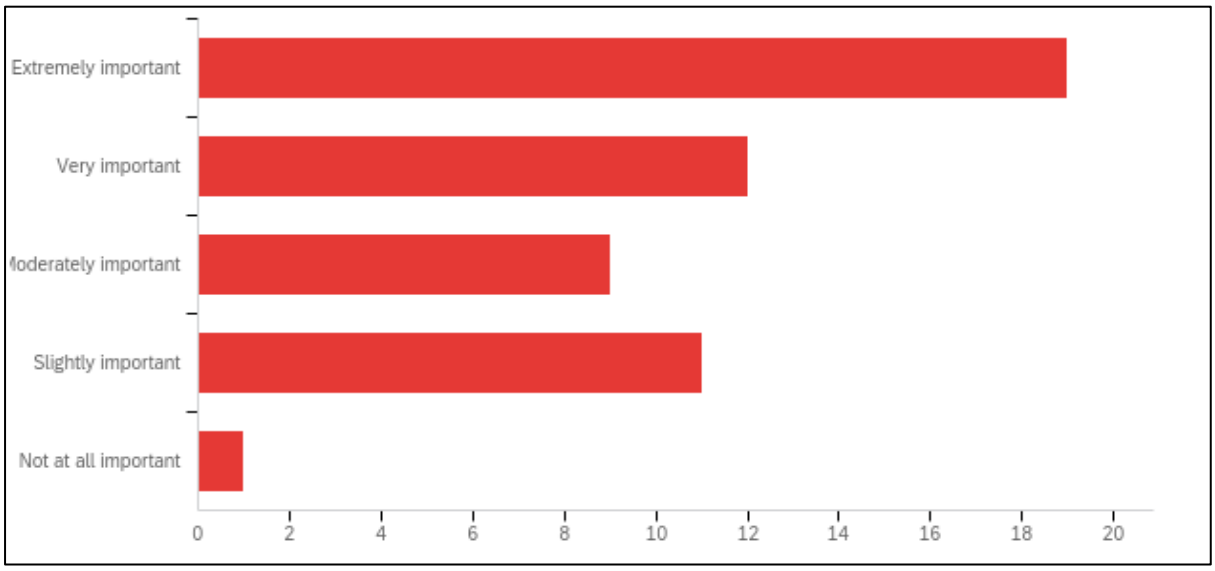

Figure 10: Is autopsy an important part of the training of the histopathologist who will be working in Ireland?

[15] National Clinical Programme for Paediatrics and Neonatology: A National Model of Care for Paediatric Healthcare Services in Ireland (https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/paediatric-laboratory-medicine.pdf)

- A majority said their department has enough cases to allow the NCHD current recommended number of 100 cases in their training (60% definitely yes or probably yes).
- Most cases had 200 or more in their department (46%).
- Most considered that attendance at inquest was a useful part of training for the NCHD (68% said either extremely or very useful.)

CHAT Exam

On whether the CHAT exam should be mandatory, more said Yes (40%) than No (30%).

Reasons people gave for why the CHAT exam should be optional:

- "Irish trainees are now at a disadvantage compared to UK trainees who can get CSCST without CHAT and may be eligible to apply for jobs in Ireland before a pathologist trainee in Ireland."
- "Autopsy detrimental to recruitment of pathologists. Surgical pathology training should be maximised in limited training time available."
- "It is not mandatory in the UK. A UK trained pathologist may be appointed to a consultant post in Ireland without having sat the CHAT. It has become quite specialised and perhaps is not suitable for pathologists in general training."
- "RCPATH control exam and UK appear to be diverging from Irish autopsy practice. Completion of specialist training entirely reliant on RCPATH; while ok for surgical pathology no reason our STC cannot sign-off autopsy training based on our own assessment. Consultants trained outside Ireland are now being appointed to consultant posts in hospitals where no autopsies performed (CUH, SJH)."

Additional comments

"Overall, I am glad that autopsies are part of my work, even though meeting with tragic situations repetitively can sometimes get you down."

"Pathologists across the country are largely employed by the health services. Maintenance of a Coroner's service is not a contractual obligation and as long as surgical services remain under-resourced and all-consuming maintenance of a Coroner's service will become more and more precarious."

"Could consider an Irish version of CHAT."

"I favour continuing to train Irish pathologists in autopsy pathology but propose the development of an Irish qualification."

"I would not like to see a situation where non-forensic pathologists with adequate experience and expertise are discouraged from autopsy practice because the faculty has made recommendations around sub-specialty forensic expertise."

"Training in autopsy is mandatory at present for our trainees as we are training them for the current outdated hybrid system. If we had clearly defined separate autopsy specialists, it would be reasonable to make the CHAT exam optional, but I'd recommend that BST trainees should still have autopsy exposure. Until the entire coroner's autopsy system is reformed

however, I think trainees need to be certified in autopsy pathology to achieve CSCST in Ireland, and the RCPath CHAT exam does the job for this."

"… I strongly believe they should not be mandatory for trainees to be signed off for their CSCST. ...Most importantly the CHAT exam is now specialised in the UK and harder for Irish trainees to pass. Why are we not keeping up with the times and organising a separate autopsy training scheme which is optional for our trainees as in the UK- if we are making them do the UK CHAT exam the least we can do is train them the same way as the UK to prepare for it. Autopsies should be carried out by interested and appropriately trained pathologists . They should not be forced upon those who are focusing on diagnostic surgical pathology and who have no background forensic or specialised autopsy training."

6. Survey of Histopathology Trainees

An electronic survey was sent to BST and HST trainees in histopathology, by email, to the email address supplied by the trainee to RCPI. A total of 59 trainees were surveyed.

A copy of the survey questions is included in Appendix C

A total of 36 trainees (response rate of 61%) completed the survey, including 8 BST trainees and 28 HST trainees. 44% of respondents had completed the CHAT examination and 14% had completed the FRCPath Part 2 exam.

Overview

While most trainees see a value in autopsy work, they highlighted issues in relation to training, both autopsy and inquest involvement, and having sufficient time to undertake their autopsy duties as issues which, if improved, might encourage involvement in autopsy practice. As a result, 39% of trainees said they liked autopsy work, with 53% of trainees responding that they did not like autopsy work.

Issues the trainees encountered included:

- "*balance(ing) autopsy workload with increasing clinical workload and study.*"
- Autopsy work was seen as an "*add on to the regular workload.*"
- It is felt that "current practice "*compromises the quality of the autopsy significantly*" with training in autopsy being "*insufficient*".
- There is "*fear of being unsupported at any potential inquests*".
- With trainees feeling that they were "*never properly trained to carry out an autopsy to the standards of FRCPath or the textbooks*".
- Trainees worry *"about things (they) have likely missed or done incorrectly*".

Training and consultant posts

Training standard appears good- most feel they will probably have enough experience at the end of training. 28% of trainees felt they *definitely* will have enough autopsy experience when they finish training to be competent in autopsy and 44% of trainees felt they *probably* will have enough autopsy experience when they finish training.

Many said they have no protected time for autopsy (44%).

Most say they have attended inquest (giving evidence), but inquest is a source of worry for many. 75% of trainees had attended an inquest. 48% of trainees had given evidence at an inquest. 44% said inquest was a source of worry for them.

The vast majority want to work in a large cancer center post when finished training. 78% of trainees hope to work in a large cancer centre hospital post or university hospital post in the future.

Significant number said they were not interested in doing autopsy as a consultant. 42% of trainees do not see themselves partaking in any autopsy work as a consultant.

Improved facilities and support were the biggest factors identified by trainees that would encourage them to continue with autopsy practice, with 30% of trainees replying that this would influence their decision to continue with autopsy work.

Autopsy training

When asked what was missing in autopsy training currently, a recurrent theme in answers received was structured autopsy teaching and support, with dedicated teaching and observation of dissection particularly at the start of BST training.

CHAT exam

With regards to the CHAT exam, 62% of trainees felt it should not be a mandatory component of training in Ireland. If the CHAT exam were optional, 70% of trainees would sit it or would consider sitting it.

Some trainees and consultants feel that this a UK based exam and thus may not be entirely relevant to the Irish situation. However, many trainees did feel that a consequence of making the CHAT exam optional would result in them being at a disadvantage when applying for consultant jobs in Ireland and thus having the CHAT would make them more competitive. Interestingly, trainees felt that making the CHAT exam optional would potentially help improve autopsy practice and standards by ensuring that those interested in autopsy would do the exam and that autopsy could be developed as a subspecialty.

7. Discussion

From the large amount of data generated by the survey, the HSC has concentrated on ***staffing, facilities and specialist services*** and has used this to make recommendations for training and for the system in the future.

Staffing

The concern among HSC members that there will be a shortage of histopathologists willing to perform coronial autopsy in the future, appears to be borne out in the responses to the surveys. For example, 42% of trainees do not see themselves partaking in any autopsy work as a consultant and just over a quarter of consultants who responded to the survey did not carry out coronial autopsy work.

Not all hospitals carry out coronial autopsies and there is no legislative requirement for them to do so. Hospital pathologists no longer undertake autopsy at Cork University Hospital, St James's Hospital, Dublin or at the Mater Misericordiae University Hospital, Dublin. The autopsy service at Limerick University Hospital is provided usually by two locum consultant histopathologists.

St. James's Hospital coronial cases are sent to the Dublin District Mortuary (DDM) and hospital cases are sent to Blanchardstown hospital. MMUH send all coronial autopsies to DDM. Both of these factors have resulted in a doubling of the DDM workload in the last two years, which is placing a strain on the DDM Whitehall facility and there is now no capacity to take on further work.

If the trend of withdrawing services to the coroners continues, there will not be enough histopathologists in the future to do all the coronial autopsies required within a reasonable time frame. We do not therefore recommend making the CHAT examination optional for trainees currently. The importance of autopsy work in medicine was emphatically highlighted by the recent SARS-CoV-2 pandemic, where autopsy practice provided invaluable information about the natural history of the virus. Autopsy builds on and expands medical knowledge and the formulation of a cause of death and clinicopathological correlation is a valuable skill with important clinical and legal applications.

From the survey findings we see some of the reasons why autopsy practice work may not be attractive to histopathologists. For example:

- Other clinical duties take priority.
- It not a contractual requirement.
- Appearances at inquests are challenging and many histopathologists may not want to/are not trained to do this.
- Many consultants feel the coronial service is undervalued and many would like to see change of the current model (for example there were suggestion to move to a centralized model, with dedicated autopsy specialists).

- Among trainees the majority want to work in a large cancer center post when finished training (78%). This of itself does not exclude autopsy practice and the majority of cancer centres retain an autopsy service in their department.

Availability of histopathology services to the coroner

A review of the Coronial service in 2000 identified that histopathology services to the coroner were essentially provided on the basis of goodwill. [16]

> *"For example, pathologists, though an obvious critical element of the coroner system, are only available on the basis of goodwill between the professions. However, there are some cases where crises have only been avoided on the basis of the drawing down of goodwill and the introduction of emergency arrangements from time to time. This cannot be the basis on which the coroner system of the future will operate*."

The review recommended that arrangements should be put in place to guarantee this service. That review did not specify exactly how this should be achieved, but mentioned that "*some form of formal, perhaps contractual arrangements, either with pathologists or with hospitals will be needed."*

International trends

A similar trend of reluctance to engage in autopsy is observed internationally and many histopathologists trained in the UK in particular, are choosing not to complete autopsy competency within specialist training. Autopsy competency remains a mandatory component of histopathology in Ireland, however.

The HSC believes that development of autopsy as a subspecialty will greatly assist in ensuring the service. Individual departments may need to be aware of the expectation of their hospital and the regional local authority and coronial requirements in relation to the autopsy service and to address this when recruiting consultants.

The provision of specific consultant autopsy contracts was discussed. This would be difficult without subspeciality designation and would also impact the perceived independence of the autopsy pathologist as an agent of the coroner. Local authorities currently fund the professional element of the service and they need to be involved in any discussions around this. Of course, any potential change to consultant contracts would also have to be approved by the HSE, IMO and IHCA.

Developing the practice of the 'limited autopsy', which became more acceptable as a result of COVID-19, could reduce the burden on individual pathologists . However, this would require case by case assessment, discussions with the coroner, local arrangements regarding PM radiology to be formalised, forensic radiology protocols to be standardised, and above all, the provision of adequate forensic or autopsy radiology trained consultant radiologists to interpret the investigations. Outside of radiological investigations, limited autopsies where an external examination, review of the medical notes and toxicology are performed (e.g. the "view and grant" system in Scotland and Australia), could perhaps be discussed with each coroner as a move to reduce autopsy workload.

[16] http://www.justice.ie/en/JELR/ReviewCoronerService.pdf/Files/ReviewCoronerService.pdf

Any such changes would have to be done with the support of the coroners and probably on a case - by case basis.

Ensuring administrative support at all stages from the organisation of the autopsy, quality assurance, to secretarial services would also help to make autopsy work less onerous to individual pathologists. This seems to vary greatly from unit to unit.

Many comments centred on the lack of protected time to dedicate to autopsy. This is an important factor, but one that can be remedied at local level. Some departments have a 'rolling rota ' for autopsy duty to ensure equal distribution of cases amongst senior and junior colleagues. However, this usually results in autopsy being performed alongside other duties. In the experience of members of the HSC who have worked with both types of rotas, dedicated, protected time is preferable.

Mortuary facilities

Not all units/mortuaries which do autopsy – only 12 of 28 units -responded to the survey issued by the HSC. It is clear from the survey that the majority reported good ventilation, (7 of 10), but there were few isolation rooms and no perceived health and safety training for infectious cases. There is a clear lack of dedicated clerical and other support. The experience of members of the HSC is that facilities are far from adequate in many mortuaries throughout the country. All of these issues have been highlighted by the recent pandemic, resulting in the need for the Faculty of Pathology to issue a guidance document on COVID-19 and mortuaries/post-mortem examinations in May 2020. [17] An updated version of these guidelines is due to be published in 2022.

The HSE is currently undertaking work to improve a number of hospital mortuary facilities around the country. As part of this, the HSC recommends that each hospital department should review their autopsy facilities, using local health and safety resources, and potentially the Health and Safety Authority for more formal input. A detailed outline of each mortuary's resource requirements can then be submitted to the HSC. These will be communicated to the HSE and form the basis of a process of improvement nationally. The HSE is eager to work with pathologists, and local authorities to progress and improve the autopsy service nationally.

This is an opportunity to look at new developments. Autopsy work is changing with expanding use of radiological techniques in many centres in the UK, North America, and Australia. If Ireland is to adopt such developments, it makes sense to develop regional services where facilities could be centralised and availed of by collaborating hospitals .

On a regional basis, it would be ideal to have a central unit with laboratory and radiological support. In time, this would evolve into becoming the preferred centre of autopsy practice. Dublin and Cork each have large, dedicated autopsy centres. However, neither have an officially dedicated laboratory facility. This would ideally be a new build or could be contracted in the interim to a local teaching hospital.

[17] https://www.rcpi.ie/news/releases/faculty-of-pathology-publishes-guidelines-on-autopsy-practise-during-the-covid-19-pandemic/

Specialist autopsy (paediatric and perinatal)

The Royal College of Pathologists and the Royal College of Paediatrics and Child Health recommend that paediatric pathologist input should be sought in all cases of perinatal and infant deaths, regardless of whether input from a FP (forensic pathologist) is warranted. [18]

A recent audit of paediatrics and perinatal cases referred to the OSP, found that "when a PP was the lead pathologist at autopsy, there appeared to be a better adherence to paediatric autopsy guidelines".[19] A clear protocol should be developed to avoid inappropriate referrals to the forensic pathology service.

There is a deficit in perinatal and paediatric pathology in general. This has been documented in a number of reports. [3, 15] There are at present a number of posts coming on stream, including replacements, which will alleviate this deficit in time. Close attention should be paid to this to make sure that the expected posts are filled.

Governance of the service

A major challenge is that there is no single governmental department with responsibility for the coronial service. This situation means that there will be huge difficulties in effecting nationwide change. The health service bears much of the costs on the ground, from providing facilities, medical, mortuary and ancillary staff such as secretaries, social workers / autopsy liaison officers / bereavement officers all of whom play a large role in the autopsy service in some of our hospitals. The local authorities resource body transportation, the payment for autopsy services and fund the regional coroners. The coroners are independent, and this must be maintained throughout any evolution of the autopsy service. The Department of Justice will also have a role because of their coronial legislation, Dublin District Mortuary and Dublin District coronial responsibilities.

It is difficult to know how long any process underlying changes to the coronial autopsy service will take to achieve and how difficult it will be. Discussions need to take place between all of the stakeholders.

Legal framework

The lack of a Human Tissue Act denies pathologists a legal framework in which to carry out autopsy and diagnostic work. The bill that is currently being drafted, named 'The Human Tissue Bill' only addresses the consented autopsy. This is a poorly named bill as unfortunately it does not deal with any other issue one would expect from such a bill. The HSC, together with the Faculty of Pathology, will continue to engage with the government in order to expand this bill.

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[18] The Royal College of Pathologists and The Royal College of Paediatrics and Child Health. Sudden unexpected death in infancy and childhood: Multi-agency guidelines for care and investigation (Section 7 + Appendices 1,2,4,5,6). Available from: https://www.rcpath.org/uploads/assets/874ae50e-c754-4933-995a804e0ef728a4/Sudden-unexpected-death-in-infancy-and-childhood-2e.pdf

[19] S. Eakins1, L. Mulligan2, K. Han Suyin2 - Paediatric cases referred to The Office of the State Pathologist https://imj.ie/irish-medical-journal-april-2021-vol-114-no-4/

8. Recommendations

Make autopsy work more manageable within the hospital pathologist's normal work environment and commitments

1. Development of autopsy as a subspecialty, with appropriate training and staffing.
2. Autopsy to be developed as a 'special interest' within histopathology departments , leading to a pool of interested consultants, thus enabling the development of a regionalised service (main training centre supported by regional hospitals in time (see Appendix D for suggested collaborating hospitals/groups).
3. Protected time for conduct of autopsy and inquest responsibilities.
4. Appropriate levels of dedicated secretarial support.
5. Inclusion of autopsy in consultant histopathologist job descriptions, with specific outlines of the expected commitment in each post

Deliver appropriate and responsive autopsy training and exams

The training of NCHDs in autopsy should continue. The Histopathology Specialty Training Committee of the Faculty of Pathology in RCPI should continue to closely examine the rotations to ensure adequate exposure to autopsies at BST and HST rotations . It should be acknowledged that trainees in centres without an autopsy service should be supported in undertaking their CHAT exam which may require linking with another site. In summary :

6. Ensure training and exams responsive to the needs of the Coronial autopsy system
7. Ensure ongoing feedback to the histopathology Speciality Training Committee (STC) and trainers to monitor issues around training needs including:
    - Approach to CHAT exam
    - Appropriate rostering of autopsy service within trainee rosters
    - Ensure ongoing incorporation of training needs around autopsy into current study day programmes. This training is relevant for all pathologists and should alleviate concerns regarding inquests.

Ensure a robust and sustainable future death investigation system

8. Ensure that autopsy has a formal standing through an Irish Human Tissue Act.
9. Begin evaluation of local mortuary facilities in order to start the process with the HSE which will result in ensuring that infrastructure and facilities nationwide are of good standard, fit for purpose and that all have access to appropriate laboratory, secretarial and social service system support.
10. Consider a change to the current system of death investigation (in line with proposals from the 2000 Review of the Coroner Service and by the 2021 research report published by the Irish Council for Civil Liberties[2]).
    - Initially a hub and spoke model, where a group of collaborating hospitals includes a university teaching hospital. This opens up rotation possibilities for trainees to get more autopsy exposure and allows for possibility of better communication between

practicing autopsy pathologists, improved standards and options for peer review and subsequently improved training.
    - Ultimately this could evolve into a regionalised autopsy service where the main hospital base is a centre of excellence and works closely with the forensic pathology service.
    - Such collaborative groups would ensure access on a regional basis to specialist expertise in neuropathology, perinatal and paediatric pathology and allow the development of radiology support services.

Ensure availability of specialist autopsy expertise

11. Ensure sufficient perinatal and paediatric pathology expertise/posts so that each region is appropriately resourced, and that appropriate referral of cases can be made.
12. Establish a clear protocol for perinatal and paediatric cases to avoid inappropriate referrals to forensic pathology service.

Implementation of recommendations

We append a suggested grouping of hospitals (see Appendix D). The hubs and the hospitals providing services would have to be agreed with the stakeholders. Each collaborating group should be resourced with access to specialist opinion and laboratory services for paediatric / perinatal and neuropathology autopsies. At the start, this would likely necessitate off-site opinion or body transfer, but appropriate consultant appointments and established guidelines for autopsy would ensure local access and more standardised practice in time. The agreed regionally assigned university/teaching hospital would be the favoured location for specialised services such as radiology and would coordinate training of NCHDs and technicians, with rotations through collaborating hospital departments as part of the training programme. A regionalised forensic service would thus also be enabled .

Additional pathologist appointments with dedicated autopsy sessions will be needed In Dublin South and in Ireland Southwest to ensure continued service in St Columcille's Hospital (SCH) and Cork University Hospital (CUH), neither of whom have a pathologist with a substantial local hospital commitment. In the case of SCH, following reconfiguration of laboratory services, the significant autopsy component did not transfer into St Vincent's University Hospital (SVUH) with the histopathologist post, although full laboratory support is provided to the mortuary by SVUH. These posts should be funded by the HSE as consultant posts with dedicated autopsy sessions. The Department of Justice may potentially be approached to provide part-funding for one or more of these posts, particularly in the Ireland Southwest region.

Next steps towards implementation:

- Circulate this proposal to histopathology consultants nationwide
- Establish a discourse with stakeholders (HSE, Department of Justice , coroners, county councils, Faculty of Pathology) with the aim of :
    - Agreeing collaborating hospital groups and function of each hospital within these groups
    - Appointing additional consultant pathologists with dedicated autopsy sessions
    - Sourcing appropriate funding.

Appendices

Appendix A: Questions for Mortuary Facilities

FACULTY OF PATHOLOGY

ROYAL COLLEGE OF PHYSICIANS OF IRELAND

Questions for Mortuary Facilities

Faculty of Pathology- Histopathology Standing Committee

May 2020

Location and catchment area

1. Where is the mortuary located?
2. What is the catchment area?
3. Name the coroner(s) who direct(s) autopsies to be performed at the mortuary.
4. Is there any proposal to regionalize the provision of autopsy services?
    a. In operation already ☐
    b. In planning ☐
    c. No, there are no such plans ☐

Autopsies

5. Type of autopsy performed (tick all that apply)
    a. Adult ☐

b. Paediatric ☐

c. Perinatal ☐

d. Neuropathology ☐

Annual Case Load

6. How many bodies go through the facility?
7. How many of these are Coroner autopsies
8. How many are Consented/Hospital autopsies?

Staff

9. Do you have a mortuary manager?
10. How many Anatomical Pathology Technicians (APTs) work in the mortuary? (Whole time equivalent -WTE)?
    a. Senior APTs?
    b. Junior APTs?
    c. Trainee APTs?
11. Is there an APT available at weekends and out-of-hours to assist with forensic cases?
12. How many consultant histopathologists work in your department? (Whole time equivalent -WTE)
13. Of these, how many perform autopsy examinations?
14. How many histopathology trainees work in the department?
15. What proportion of autopsy examinations are performed by histopathology trainees with consultant supervision?
    a. All ☐
    b. Majority ☐
    c. About half ☐
    d. Minority ☐
16. Do medical students attend cases?
    a. Never ☐

b. Rarely ☐

c. Sometimes ☐

d. Often ☐

e. Always ☐

Additional services

17. Is there secretarial support at the mortuary?

18. Is there onsite availability for autopsy biochemistry and microbiology?

19. Is there onsite availability for autopsy imaging?

20. Is there a radiologist on site who can report the autopsy imaging?

21. Is the mortuary on NIMIS (National Integrated Medical Imaging System)?

22. Is there a formal arrangement with the radiology department in the hospital (where the mortuary is located) for carrying out the autopsy radiology?

23. Is histology performed on or off-site? If off-site, where?

24. Who finances the histology?

25. Is there a payment for the use of the mortuary/autopsy facility?

Facilities

26. What is the refrigerated body storage capacity of the mortuary?

27. How many tables are there for autopsies?

28. How many tables are actually used on a regular basis?

29. Is there adequate autopsy equipment?

30. Staff facilities

    a. Separate changing area for staff ☐

    b. Shower facilities ☐

    c. Toilet facilities ☐

31. Is there an office facility for paperwork, phone calls, microscopy, etc?

32. Is there a facility for families to view/identify their deceased relatives?

Hazards and protective equipment

33. What protective clothing and equipment is available? Tick all that apply.

    a. Gowns ☐

    b. Gloves ☐

    c. Eye protection (goggles, glasses) ☐

    d. Surgical Masks ☐

    e. Respirator masks ☐

    f. Head covers ☐

    g. Shoe covers ☐

34. Are there isolation facilities to perform infectious cases (hazard group 3,4)?

35. What type of ventilation is present?

    a. Downdraft tables only ☐

    b. Full room downdraft ☐

    c. None ☐

Upgrades and future plans

36. Are there any existing proposals to upgrade the facility?

    a. Yes, planned and costed and approved and underway ☐

    b. Yes, planned and costed and approved but not underway ☐

    c. Yes, planned and costed but not approved ☐

    d. Yes, planned but not costed ☐

37. Is there any capacity to upgrade the facility within its existing footprint?

38. Is there any capacity to upgrade the facility adjacent to its existing footprint?

39. Is there any space on the hospital campus to construct a new mortuary?

40. Do any of the proposed upgrades include a facility suitable for handling hazardous autopsies?

Additional information

41. Any further information you would like to include?

Appendix B – Survey for Consultants

Autopsy Survey-Consultants Final D

Appendix C – Survey for Trainees

Autopsy Survey-Trainees fina

Appendix D – Suggested Collaborating Hospitals/Groups

Group	Supporting Hospitals	Paediatric centre	Perinatal centre (including regional SIDS cases)	Neuropatholoy Centre	Main Centre	Associated University Teaching Hospital
Dublin North	Beaumont Hospital Mater Misericordiae University Hospital (MMUH) Our Lady of Lourdes Hospital, Drogheda James Connolly Memorial Hospital (JCMH) / Navan Hospital Cavan Hospital	Children's Health Ireland (CHI)	Rotunda	Beaumont Hospital (BH)	Dublin District Mortuary (DDM)	BH
Dublin South	St. Columcille's Hospital Loughlinstown St Vincent's University Hospital (SVUH) Tallaght University Hospital (TUH) Naas General Hospital St James's Hospital	Children's Health Ireland (CHI)	Coombe Women and Infants University Hospital (CWIUH) National Maternity Hospital (NMH)	BH	TUH	TUH

Ireland North/North West	Letterkenny University Hospital(LUH) Sligo University Hospital	Children's Health Ireland (CHI)	Galway University Hospital (GUH)	BH	LUH	LUH
Ireland West	Galway University Hospital (GUH) Ballinasloe Hospital Mayo General Hospital	Children's Health Ireland (CHI)	GUH	Cork University Hospital (CUH)	GUH	GUH
Ireland South/South West	CUH Mercy Hospital Cork Kerry General Hospital Bantry and Mallow hospitals	Children's Health Ireland (CHI)	CUH	CUH	CUH	CUH
Ireland Southeast	Waterford University Hospital (WUH) Limerick University Hospital Wexford General Hospital South Tipperary General Hospital	Children's Health Ireland (CHI)	CUH	CUH	WUH	WUH
Midlands	Midlands Regional Hospital Tullamore Midlands Regional Hospital Portlaoise	Children's Health Ireland (CHI)		BH	MRH Tullamore	

	Midlands Regional Hospital Mullingar					