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Practice advice: The medical investigation of suspected homicide

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Introduction

This guidance provides advice on dealing with the pathology aspects of an investigation into a sudden and unexplained death. Separate guidance provides advice on the initial actions before instigating a homicide investigation (see [Death investigation](#)).

Together, they replace Chapter 11 (Pathology) of the ACPO (2006) Murder Investigation Manual and have been approved by NPCC, the Chief Coroner and the Coroners' Society of England and Wales.

This advice relates to the investigation of the death of adults. Separate practice advice can be found for the investigation into the death of children at the following link:

<http://library.college.police.uk/docs/acpo/ACPO-guide-to-investigating-child-deaths-2014.doc>

Dealing with death

Dealing with the death of a human being is one of the most fundamental roles within policing, and one that has, over the years, brought much criticism to the police service in England and Wales.

The system of death investigation in England and Wales essentially fits into one of three pathways:

- Death which is anticipated due to ill health and where a medical doctor is able to issue a Medical Certificate of the Cause of Death (MCCD).
- Death where a doctor is unable to issue a certificate because they had not recently been treating the deceased or the death was unexpected. The case is then referred to a coroner for investigation. This will usually involve the police and/or the coroner's officer attending the scene of the death and completing an initial investigation on behalf of the coroner. If the outcome of that investigation is that the death is not suspicious, and there is no third party involvement, the coroner will continue with the investigation. This is often assisted by the police, which may involve the appointment of a non-forensic hospital 'histopathologist' to conduct a postmortem examination to help determine the medical cause of death.
- Death where the outcome of the police investigation is that the case is suspicious, the police take on primacy in the investigation. In consultation with the police, the coroner will appoint a Home Office registered forensic pathologist (HORFP) to conduct the

postmortem examination. The two disciplines of normal non-forensic postmortems and forensic postmortems are very different. Therefore, if the outcome of that initial police investigation is flawed, and the decision by the police is that the case is not suspicious, there will be no forensic examination of the body and a potential homicide could be missed.

Forensic pathology in England and Wales is overseen by the Home Office Pathology Delivery Board (PDB), which is responsible for the maintenance of the Home Office Register of Forensic Pathologists and issues connected with the medical investigation of death in police cases.

A report published by the Forensic Science Regulator in December 2015¹ highlights the potential to 'miss' a homicide. In order to reduce the likelihood of such a miss, it is essential that the police service deals with death in a systematic and professional manner.

Forensic pathology is an essential element in most suspicious death and homicide investigations. Senior investigating officers (SIOs) must have a clear knowledge of how pathology can assist an investigation, and of the various issues that are associated with the discipline.

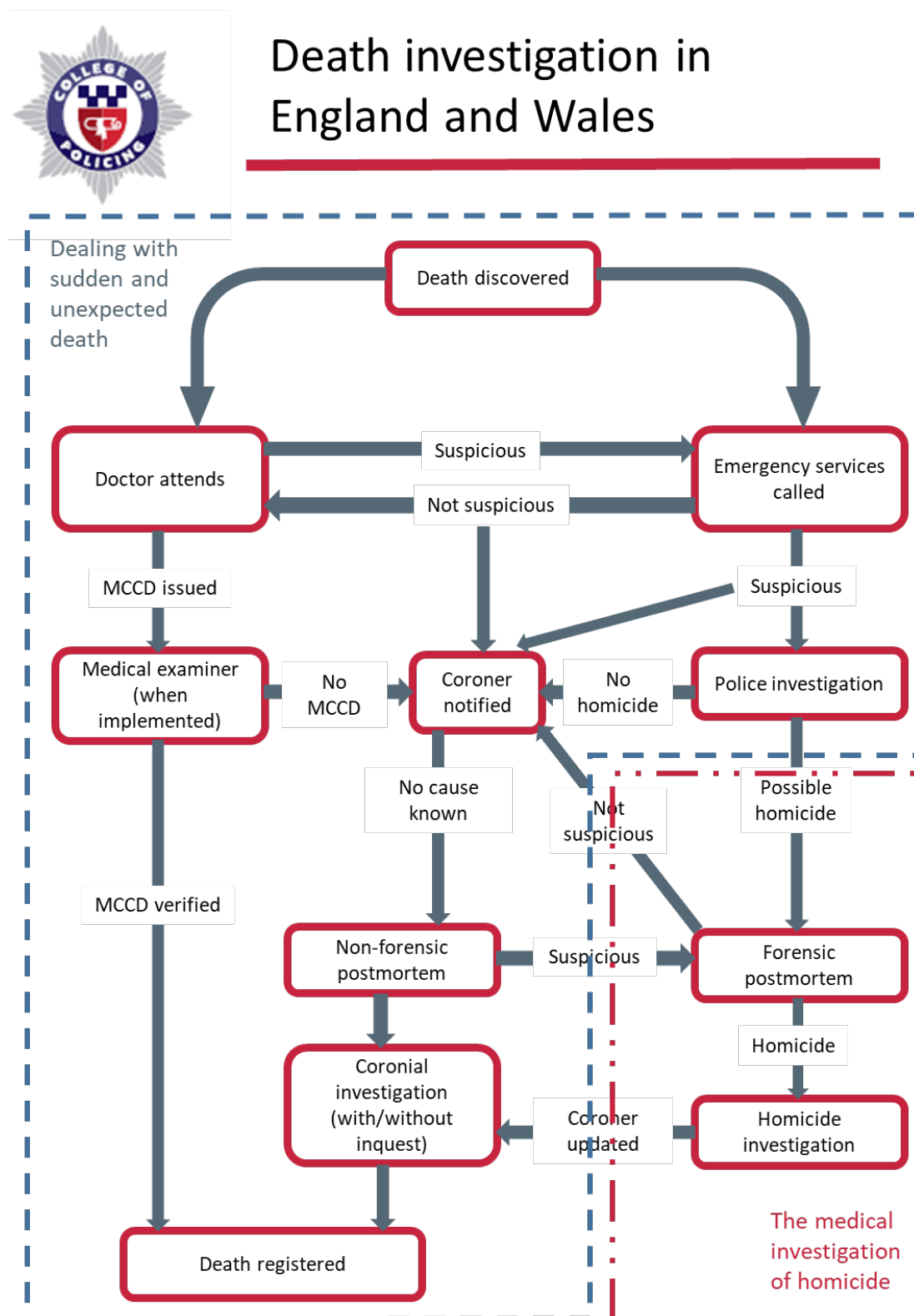
HORFPs are appointed in each suspicious death case by the senior coroner for the relevant district, and in consultation with the local chief officer of police. In such cases, the forensic pathologist receives a statutory fee from the coroner in accordance with the Coroners Allowances, Fees and Expenses Regulations 2013.² The police also pay the forensic pathologist a case fee as an expert witness.

¹ A Study into Decision Making at the Initial Scene of Unexpected Death.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/484298/Report_into_the_2012_FSR_FP_Audit_Publication_copy_pdf

² The Coroners Allowances, Fees and Expenses Regulations 2013.
<http://www.legislation.gov.uk/uksi/2013/1615/schedule/made>

Death investigation

The following diagram outlines the process of death investigation in England and Wales. It includes the boundaries between this guidance and the 'Dealing with sudden and unexpected death' guidance.



The pathology strategy

Strategy content

There are several issues that must be addressed in relation to pathology:

- Notifying the coroner, who will appoint a forensic pathologist to undertake the postmortem examination in consultation with the police.³
- Consideration of health and safety and staff welfare arrangements.
- Assessing the value of a forensic pathologist's attendance at the crime scene or access by remote visual means.
- Liaising with the forensic pathologist throughout the investigation.
- Removal of the body, including:
 - what actions must be performed before its removal
 - supervising the removal
 - continuity of the body from the scene to the mortuary
 - identifying the body to the forensic pathologist, prior to the postmortem examination (or establishment of continuity if identity is unknown).
- Deciding who should attend the postmortem examination and/or scene, including specialists.
- Providing the correct resources at the postmortem examination to deal with exhibits, samples and photography.
- Forensic postmortem examinations must take place in a mortuary which is licensed by the Human Tissue Authority (HTA).⁴ This includes temporary mortuaries. The mortuary must be suitably equipped for conducting forensic postmortem cases. The Forensic Science Regulator is in the process of developing standards for mortuary facilities in England, Wales and Northern Ireland, which will appear in future updated versions of this APP when published.
- Family liaison considerations presented by the postmortem examination.

³ The Coroners (Investigations) Regulations 2013 Part 3, Regulation 12.

<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/12/made>

⁴ Human Tissue Act 2004. <http://www.legislation.gov.uk/ukpga/2004/30/contents>

- Potential for an additional examination of the body or relevant material, ie the second or 'defence postmortem examination'.
- Consideration of the legal issues that may arise during the forensic medical examination of a foetus. A foetus which is born alive becomes a living person, independent from its mother. Where the foetus does not survive until birth or is stillborn, it has not lived and as a result, has not died. This means that the coroner (in England and Wales) has no jurisdiction over a foetus or stillborn child. It also means that any medical or scientific examination of the remains does not amount to a postmortem examination. If an official postmortem examination is granted, then any examination should be carried out in the same circumstances and to the same standards as would apply to a deceased infant. The police powers to seize and examine, or order the examination of evidence, can be applied to a foetus or stillborn child. The position in Northern Ireland is different, where the coroner has jurisdiction.
- Release of the body.
- Issues surrounding seizure and retention of human tissue (see [Retention of material after postmortem examination](#)).
- Additional considerations in relation to child death investigations (see the ACPO Guide to Investigating Child Deaths⁵).

These issues and any additional elements of the forensic strategy must be logged in the policy file and continuously reviewed.

Key roles

Pathology plays an essential role in forming the forensic strategy. The following professionals are key to this process.

Home Office registered forensic pathologist

Home Office registered forensic pathologists (HORFPs) (England and Wales)/consultant forensic pathologists (Scotland)/state pathologists (Northern Ireland), plus paediatric and other organ specific pathology specialists (such as neuro eye and bone pathologists) assist the forensic pathologists in their investigations. The SIO may draw on the expert assistance of a forensic pathologist on a number of areas, including:

⁵ ACPO (2014) A Guide to Investigating Child Deaths.
<http://library.college.police.uk/docs/acpo/ACPO-guide-to-investigating-child-deaths-2014.doc>

- Advising on the removal of the body to the mortuary.
- Assisting with the identification of the victim.
- Assessing the size, physique and previous health of the victim.
- Determining the cause, mode and potential time of death where possible.
- Obtaining and recording evidence, including advising on detailed photographic evidence of external and internal injuries.
- Providing advice on the possible type and dimensions of any weapon.
- Setting the postmortem examination findings in context with the initial crime scene assessment.
- Assisting the SIO with early lines of enquiry.
- Contributing to the forensic strategy.
- Contributing to the decision-making process throughout the inquiry, as appropriate.
- Advising on the use of cross-sectional imaging of the body prior to the postmortem.

Strategies relating to crime scene management and the collection and analysis of forensic evidence are inextricable from pathology. The SIO will need to take account of all of the latter points when developing, reviewing and managing the forensic strategy.

Forensic pathologists are on call 24 hours a day, 7 days a week to respond to requests to attend scenes, and conduct postmortem examinations in accordance with local force MoU, or contractual agreements and the Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland.⁶ They can advise on health and safety issues in conjunction with the crime scene manager (CSM) at the scene and within the postmortem examination room or mortuary. It is established good practice that forensic pathologists conduct postmortem examinations in all suspicious death cases. If a non-forensic pathologist conducts a postmortem examination of a suspicious death, they are expected to comply with the same performance standards.

⁶ Code of practice and performance standards for forensic pathology in England, Wales and Northern Ireland. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115698/code-practice-forensic-pathology.pdf

In common law, physical control over the body rests with the coroner, and after consultation with the chief officer of police⁷, the coroner should appoint a 'suitable practitioner' (a forensic pathologist) (Regulation 11) to conduct a postmortem examination as soon as reasonably possible in cases where a homicide is suspected.

Where the police have notified the coroner (Regulation 12) that a homicide offence is suspected in connection with the death, the coroner must notify the police of the date, time and place at which the postmortem examination is to be made, and a police representative may attend the postmortem examination.

The police are also entitled to be represented at the postmortem examination by a medical practitioner.⁸

Using non-registered pathologists

Using a non-forensic pathologist may lead to a homicide being missed, or could lead to the loss of vital forensic trace or DNA evidence transferred to the deceased from the offender.⁹

Maintaining contact with the forensic pathologist

The role of the forensic pathologist is not limited to the postmortem examination. There may be regular contact between the investigation team and the forensic pathologist throughout the investigation, including certain decision-making points with the Crown Prosecution Service (CPS). This is often the case when evidence relevant to the injuries or cause of death becomes available from witnesses, scientists or the offender as the investigation progresses.

It is essential there is effective and documented communication between the SIO, coroner and forensic pathologist. As soon as the case has been referred to the CPS, details of the CPS lawyer should also be provided to the coroner.

Photographs of the scene and relevant scientific results from a postmortem examination such as toxicology results must be relayed to the forensic pathologist as soon as possible, along with any other issues relating to the injuries or cause of death that become apparent during the investigation.

⁷ The Coroners (Investigations) Regulations 2013, Regulation 12.

<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/12/made>

⁸ The Coroners (Investigations) Regulations 2013, Regulation 13 (3) and 13 (3) (4).

<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/13/made>

⁹ ACPO Journal of Homicide and Major Incident Investigation Volume 9, Issue 2 Nov 2014 (page 58).

http://library.college.police.uk/docs/J_Homicide_MII/J_Homicide_9.2.pdf

Coroner's officer

It is essential that the enquiry team establish early liaison with the coroner through the coroner's officer, in order to get the necessary authority to conduct the postmortem examination and have a forensic pathologist appointed.

A designated coroner's officer, who works directly for the coroner only, should be responsible for producing the necessary file relating to identification, which will allow the coroner's investigation to be conducted. This ensures that action is taken to satisfy the coroner that all examinations are completed before the body can be released. The SIO will liaise with the coroner to facilitate the release of the body when no further examination is required by the prosecution and defence.

Other expertise available

Other medical expertise

If the circumstances of the case require additional expertise to support the pathological examination, such as a paediatric or organ specific pathologist (such as a neuropathologist), it is the responsibility of the forensic pathologist to make appropriate recommendations to the SIO, crime scene manager and coroner.

Injuries

In addition to medical experts, the SIO may also (in consultation with the forensic pathologist) consider contacting the National Crime Agency (NCA) Major Crime Investigative Support team's National Injuries Database (NID) for advice and guidance (0845 000 5463, mcis@nca.pnn.police.uk).

In all cases where additional experts are used for pathology related investigations, the original forensic pathologist should be consulted and all necessary steps must be taken to ensure continuity. The forensic pathologist is responsible, in consultation with the coroner and the SIO, for advising on the need for additional examinations and/or investigations.

Radiological examinations and body scanning

While it is appreciated that scanning facilities may not be universally available, the use of radiological examination and/or CT and MRI scans **must** be considered in consultation with the forensic pathologist in:

- cases of suspected non-accidental injury in children

- all deaths involving firearms or explosives.

It can also greatly assist in the examination of badly burnt or decomposed bodies and may also be appropriate in other instances, for example sharp wounds where knives have impacted on the bone.

Skeletal surveys are considered mandatory for the investigation of unexplained child deaths. Where available, MRI scans should be reserved for children.

Advantages

Where facilities are available, scanning may assist an investigation for the following reasons:

- It captures external and internal features (within the limits of CT scanning) prior to any invasive procedures. This provides a permanent record that can be reviewed at any time in the future (so-called 'virtual exhumation') by properly interested persons. These features can be later used for the presentation of pathology matters within a court setting with the use of 2D and 3D images, as well as movies.
- It permits the documentation of the presence of external and internal injuries that can be identified with CT.
- It may identify some pre-existing natural disease. This would include the identification of infectious diseases such as tuberculosis prior to opening a body.
- It may identify the location of foreign bodies on and inside the body.
- It can assist in identifying a potential cause of death and permit some postulation upon a potential mechanism of death.
- It can potentially be used to assist in the estimation of postmortem interval (time of death), although the current evidence base for this is at a basic level, and should not be relied upon as sole evidence in this field of practice.
- It can assist in the identification of an individual.
- It can assist with the collection of biological samples by needle such as toxicology, microbiology and histology.

Limitations

The limitations of CT imaging are:

- It cannot be used to document the nature or location of bruises or abrasions on the surface of the body. An external examination is needed instead.
- It will not be able to demonstrate the path of (for example) a stab wound or projectile to the same level as an invasive examination.

- It can identify the location of a bruise in internal structures, although this is not currently at the same level as that of an examination by eye.
- While CT scanning may identify a potential cause of death, this may not be the actual cause of death.

When contrast injection is used with CT, then toxicology, microbiology and other such samples should be taken prior to contrast injection. Contrast injection **does not** affect subsequent DNA samples, including blood samples used for DNA identification.

Other specialists

Depending on the nature of the death, the SIO should also consider (in consultation with the forensic pathologist, crime scene manager and coroner) inviting additional specialists to attend the postmortem examination. Examples of specialists who might be considered by the SIO include, but are not restricted to:

- Odontologist.
- Biologist.
- Botanist.
- Medical illustrator (decomposed bodies).
- Toxicologist.
- Ballistics expert.
- Entomologist.
- Anthropologist.
- Other pathology disciplines such as paediatricians and neuropathologists.

Initial response and actions to be taken before postmortem

Reporting to the coroner

Once a body has been discovered and a violent or unnatural death is suspected, or the cause of the death is unknown, or the deceased died while in custody or otherwise in state detention, it must be reported to the senior coroner for that district as it is that coroner's duty to investigate all deaths of this nature.¹⁰

The SIO is responsible for reporting to the coroner/coroner's officer immediately that an investigation is underway. A senior coroner may now direct a body to be removed to any suitable place (subject to certain restrictions) within the coroner's area or elsewhere for the purpose of conducting a postmortem examination under section 14 of the Coroners and Justice Act 2009.¹¹ In many forces, the coroner's officer has an important role in this regard. The SIO should therefore consult with the coroner/coroner's officer if there is a need for a body to be removed to a particular mortuary for a specific purpose.

Initial SIO actions

In the initial stages of an investigation, the SIO must ensure the following:

- Details of all persons attending the scenes/victim are recorded (recording them in the Crime Scene Attendance Log).
- Separate medical practitioners should be used for victim(s) and suspect(s) examinations in order to avoid cross-contamination issues.
- Details of all treatment and drugs administered to the victim are recorded and relayed to the forensic pathologist (before the postmortem examination, where possible).
- Details of any drugs (both prescription and non-prescription) or alcohol found at the crime scene(s) are recorded and relayed to the forensic pathologist.

¹⁰ Coroners and Justice Act 2009, part 1, chapter 1.
<http://www.legislation.gov.uk/ukpga/2009/25/part/1/chapter/1>

¹¹ Coroners and Justice Act 2009, part 1, chapter 14.
<http://www.legislation.gov.uk/ukpga/2009/25/section/14>

- The victim's medical records are obtained and made available to the forensic pathologist before the postmortem examination.
- Any possibility of hazards suspected to have caused the death are communicated to anyone else at risk.
- Wishes of the next of kin relating to organ transplantation, which may require careful consideration depending on the cause of death.¹²

Crime scene attendance

The forensic pathologist may be requested to attend a crime scene, along with any other relevant specialists under the following circumstances or for the following reasons:

- To gain a better understanding of the crime scene.
- In cases of multiple stabbings, mutilation or shootings involving multiple shots.
- Where the scene is regarded as complex, for example a buried body or the attempted destruction of a body by fire.
- Where there are multiple scenes and/or multiple deaths.
- Circumstances where samples need to be taken in situ, such as:
 - sexual offences
 - weapons embedded in the body
 - entomological evidence exists (this is best performed by an entomologist).
- Where advanced decomposition has occurred.
- To advise on [removal of the body](#).

Briefing the forensic pathologist

Prior to attending a crime scene the SIO, deputy SIO or delegated person must fully brief the forensic pathologist. This should be done in writing where possible, so the needs of the investigation are clearly communicated.

The following key areas should be included in the briefing:

- Identity of the deceased, if known.

¹² ACPO/NPIA Journal of Homicide and Major Incident Investigation Volume 6, Issue 2 Autumn 2010. http://library.college.police.uk/docs/J_Homicide_MII/J_Homicide_6.1.pdf

- History of the deceased – including the victim’s medical history, drugs found at the scene and actions taken or developments since the discovery of the body.
- Timescales concerning the finding of the body, the last sighting and any other significant times which may impact upon the estimated time of death.
- Any additional information received from other experts if appropriate.
- Initial evidence from witnesses.
- Scope and priorities of the investigation.
- Any special evidential expectations and requirements of the scene examination and postmortem examination.
- Circumstances surrounding the scene and death, so that potential experts who may assist the forensic pathologist are able to discuss and assess these with the forensic pathologist.

It must be noted that the expert opinion of the forensic pathologist as to the cause of death is often contextually based upon other circumstances and other evidence.

At the briefing, the pathologist (in liaison with the SIO, CSM and other experts) will evaluate the available information and identify:

- Health and safety issues and relevant risk assessments at the crime scene.
- Evidential issues raised by the circumstances of death and how these issues are best approached.
- Risk of contamination posed by the circumstances of the case, and the measures that are required to prevent such contamination.
- How the examination of the scene and body should be approached.
- The best location for the postmortem examination and, if possible, an approximate time of arrival at that location.
- Whether it is believed the postmortem examination should be conducted under ‘high risk’ conditions.

Forensic pathologists should make a detailed, dated and timed record of the briefing.

Forensic pathologists must record full details of the scene and the body, and document both their own actions and the actions of others that may be significant to their examination.

Taking samples

Lawful seizure at the scene

It is essential that no samples are taken from the body until there has been consultation between the forensic pathologist, SIO, CSM and other forensic experts. Samples at the scene should normally be taken under [section 19](#) of the Police and Criminal Evidence Act (PACE) 1984.

If the body is not in 'premises' as defined by [section 23](#) of PACE, consideration should be given to take the samples under common law.

Legal advice regarding powers of seizure from the body must be sought.¹³ Again, common law powers should be used if PACE does not apply. If any material from the body is to be retained and/or preserved, the coroner must be informed in writing.

Where there is a concern that trace evidence may be shed or contaminated by manipulation of the body into the body bag, it may be advisable to remove some or all of the clothing at the scene. All specimens should be taken using only equipment supplied or approved by the CSI. If clothing needs to be cut, only instruments supplied by the CSI should be used. This process should be included in any specific strategy relating to body removal.

Samples

Samples from the following areas should be considered:

- Tappings or adhesive tape lifts from exposed body surfaces, uppermost surfaces of clothing, and known or suspected contact areas.
- Combing of head, facial and pubic hair.
- Plucked hairs from the above areas (additional hair samples may be needed if there is objective evidence of chronic drug use).
- Swabs from the mouth, teeth, genitalia, and any injured or moist surface areas of the body, specifically bite marks.
- Tappings from the hands where any foreign material is recognised.
- Scrapings from underneath the fingernails of each hand, or fingernail cuttings.

¹³ 23 Essex Street Chambers London – The proper lawful authority for taking and retaining human tissue material in a post mortem examination.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/495006/Human_Tissue_Retention_Advice_1__revised_17_06_11___f_.pdf

- Washing of nasal passages for pollen deposits (in consultation with a forensic botanist).
- Any other samples appropriate to the circumstances of the case.

Where the death may be related to firearms or explosives, samples must be taken from hair and hands using only the appropriate, specific sampling kits approved by the relevant forensic service provider.

If the forensic pathologist cannot attend or is delayed and it is agreed that removal of the body is essential (for example, because of the location or adverse weather conditions), the SIO should consult with the CSM to determine the most appropriate course of action. Where a forensic pathologist has not attended a scene, photographs, video recordings and other imaging techniques will be useful in the forensic pathologist's subsequent briefing.

In all cases where the victim is not dead at the scene and taken to hospital, consented pre-transfusion blood should be taken for analysis of alcohol/drugs (police powers do not provide for the taking of blood). Drug/alcohol traces in the blood will degrade over time, therefore it is important that blood is obtained at the earliest opportunity. If the victim subsequently dies, postmortem samples are likely to be less evidentially valuable. Pre-transfusion blood should also be obtained from any suspects taken to hospital. Reliance on hospital analysis of blood should be avoided unless absolutely necessary, due to the following reasons:

- Hospital labs tend to test for a 'panel' of drugs which are relevant for the medical treatment of the 'patient'. That panel will not necessarily include the drugs potentially relevant to a criminal investigation.
- Most hospital labs do not adhere to the processes and standards required by the criminal justice system.

Removal of the body

Once the scene has been assessed and the removal of the body is approved by the SIO and authorised by the coroner, the CSM (with assistance from the forensic pathologist if appropriate), will usually supervise the removal. If trace evidence has not been collected at the scene, bags may be placed over the deceased's hands before the body is removed. If the head is bagged, it is important to remember that any open wound is likely to shed blood into the bag during transit. This may obscure details such as the direction of dried bloodstains and make it difficult to collect trace evidence. Therefore, it is advisable to examine the head for such material at the scene where possible, and to photograph it before bagging. Care must be taken to secure the bags, so that additional marks are not made which may mistakenly indicate the use of ligatures.

The CSM has the delegated responsibility of the SIO for ensuring continuity of the body. The CSM must designate an officer to accompany the body from the crime scene to the mortuary, and to identify the body to the forensic pathologist.

On arrival at the mortuary, the body should remain undisturbed. It should remain in its wrapping or body bag until the forensic pathologist arrives to undertake the examination. This is to maintain the integrity and continuity of the body. It is also important that the body is not placed in a refrigerator if the body temperature needs to be taken to assist with the estimation of the time since death (postmortem interval).

Victim identification

Visual identification

The identity of the victim is usually known and can be positively identified by a relative or friend at an arranged time. Identification should usually be made by two people, independently, to provide corroboration. Viewing before a postmortem examination should be considered by the SIO on a case-by-case basis, but should normally be avoided unless there is an important investigative need. This reduces the possibility of contamination or destruction of trace evidence and assists the timeliness of the postmortem examination. Viewing the body is facilitated by the family liaison officer (FLO) through the coroner's officer.

Where the identity of a victim is unknown, it is vitally important to discover this as soon as possible. On some occasions, the body may be mutilated or have been concealed for such a time that postmortem changes make visual identification impossible. The detailed examination of the body for evidence of identity is a specialised task for the forensic pathologist and other experts (eg, odontologists, entomologists, anthropologists).

Primary methods

The following primary methods may assist in identifying the victim where the body is decomposed, dismembered or otherwise unsuitable for visual identification:

- odontology
- fingerprints
- DNA.

Secondary methods

In addition, secondary identification methods can be used:

- unique medical identifier – serial number of an implant
- marks
- scars
- tattoos
- medical records
- medical images, such as X-ray, CT scan

- unique identifiable jewellery
- personal effects
- distinctive or unique clothing
- physical disease, amputations, etc.

Assistance only methods

These include:

- jewellery
- clothing
- location
- description
- visual appearance of the deceased.

For further advice, see Civil Contingencies Disaster Victim Identification APP.¹⁴

Databases

There are several databases which may be used to help identify a body:

- National DNA database (NDNAD).
- National fingerprint database (Ident1).
- Vulnerable persons database (VPDD).
- Missing person DNA database (MPDD).

It is anticipated that in the future, persons who wish to be buried at sea will have to provide a DNA sample as a condition of the MMO licensing regulations. This DNA profile will be stored within a separate section within the Missing Persons DNA database. Once this facility is operational, the potential to identify or eliminate such remains at the early stages of an investigation will be an invaluable investigative tool for the SIO. All enquiries relating to this subject should be addressed to the NCA Missing Persons Unit at UKMPU@nca.x.gsi.gov.uk, or by calling 0800 234 6034.

¹⁴ College of Policing APP Civil Emergencies. <https://www.app.college.police.uk/app-content/civil-emergencies/disaster-victim-identification/recovering-and-identifying-the-deceased-and-human-remains/#identification-criteria>

Mass fatalities

In cases of unidentified bodies and mass fatalities, the SIO should ensure the pink Interpol Disaster Victim Identification form is completed in consultation with the designated force senior identification manager (SIM). The designated force SIM should also use the Interpol processes for circulating details of unidentified bodies, if applicable.

See Civil Contingencies Disaster Victim Identification APP¹⁵ for advice on the recovery of multiple bodies and body parts from scenes, including, if deployed, the role of the SIM.¹⁶

Bodies washed up on beaches

For investigations relating to bodies or body parts washed up along the coastline, consideration should be given to the possibility that such remains may have come from one of several sea burial grounds, sited on the UK's coastal areas (currently there are three: off the Needles at the Isle of Wight, Coast of Sussex and Northumbrian Coast; although only the Isle of Wight site is currently active). In these cases it is recommended that early contact is made with the National Crime Agency's (NCA) Missing Persons Bureau (MPB). The Marine Management Organisation (MMO)¹⁷ issue licences for sea burials and may be able to provide assistance.

Forensic anthropology

When skeletal remains are found, information can usually be provided concerning:

- whether the remains are actually bones
- whether the bones are human
- sex
- age
- height of the person
- ethnic origin.

¹⁵ College of Policing APP Civil Emergencies. <https://www.app.college.police.uk/app-content/civil-emergencies/disaster-victim-identification/recovering-and-identifying-the-deceased-and-human-remains/>

¹⁶ College of Policing APP Civil Emergencies. <https://www.app.college.police.uk/app-content/civil-emergencies/disaster-victim-identification/dvi-roles-and-responsibilities/#senior-identification-manager>

¹⁷ Marine Management Organisation. <https://www.gov.uk/government/organisations/marine-management-organisation>

Family liaison

In all instances the SIO should ensure the victim's family is kept informed of developments in the investigation, including the outcomes of the pathology investigation, and given appropriate support.

Time and cause of death

Evidence of the time of death based on factual evidence, such as when the victim was last seen or when they were found dead, tends to be more accurate than that based on the condition of the body and the immediate environment. However, temperature readings may be more reliable for estimating time since death in the early postmortem interval stage.¹⁸

It is important that the SIO obtains from the forensic pathologist an indication of the time period of when the death occurred. A forensic pathologist is more likely to provide a range of estimated times. Even an approximate time of death can be invaluable in narrowing investigation and evaluation parameters or informing suspect and witness interview strategies.

Uncollected mail and newspapers may give an approximate time and date of death. The condition of the environment, the presence of food and dirty dishes, as well as cell site information and data communications from mobile phones, computers and other devices can also be useful indicators. Consideration should be given to developing and using timelines to assist in determination.

Forensic analysis of alcohol levels, which can be provided by the force's forensic provider, may also be useful. Blood alcohol levels may assist either solely or in combination with other methods in providing a time of death estimate in the early postmortem interval phase. Alcohol back-calculations in road traffic collision cases are well established and based on sound data. Similar conclusions about the time that has elapsed since drinking can be drawn in fatal cases, but certain factors need to be considered that could affect the alcohol levels seen, eg, if the victim had diabetes, or died of hypothermia or is in the process of decomposition.

Where the contents of a last meal are unusual or have distinctive ingredients which may tie in with a known meal, this can assist in establishing a time of death by confirming sightings from a potential witness. However, the physiological behaviour of the digestion system varies, and estimating the time of death using stomach contents emptying has to be assessed with great caution due to the many variables that could affect the rate of emptying. Stress, as well as a head injury, can slow down or stop the digestion process. Should the

¹⁸ The Use of Time of Death Estimates Based on Heat Loss From the Body.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/358065/GuidanceonToDEstimate.pdf

SIO require a forensic expert to establish time since death, this should be discussed with the forensic pathologist initially.¹⁹

The cause and/or manner of death may be a pivotal factor in a homicide allegation. It is, therefore, essential that the SIO fully understands the cause of death identified by the forensic pathologist, and the reasons for coming to this conclusion. The SIO must be prepared to draw on material generated by the investigative team to assist or challenge the forensic pathologist's conclusions.

The cause of death should be included in the forensic pathologist's report and explained in both plain English and in medical terms.

¹⁹ Swift, B. (2010) Methods of Time Since Death Estimation within the Early Post Mortem Interval. The Journal of Homicide and Major Incident Investigation, Volume 6, Issue 1.
http://criminology.research.southwales.ac.uk/media/files/documents/2013-10-31/Volume_6_Issue_1_Spring_2010-HJ_Spring_10_final_locked_12.05.10.pdf

The postmortem examination

The purpose of the postmortem examination is to establish the identity of the body, the cause of death, the extent and nature of the victim's injuries and the presence of any natural disease, to collect evidence and to make a factual record of the findings relevant to the circumstances of the death. Furthermore, the forensic pathologist may offer an opinion concerning what may have happened at the scene, and when and how death might have occurred.

The mortuary used for a forensic postmortem examination will be determined by the coroner who authorises the postmortem examination, and must be licensed by the Human Tissue Authority.²⁰ The forensic pathologist must record full details of the postmortem examination and document the processes they have adopted. These records are disclosable to another forensic pathologist who may be appointed by the coroner to conduct a second or defence postmortem examination.

Religious and other considerations

There may be a natural resistance from some communities regarding a postmortem examination. This could be based on cultural or religious beliefs that the body should be left intact following death. The SIO should respond sensitively to these matters, and bring them to the attention of the coroner.²¹

Attendance at postmortem examinations

Regulations²² also provide for the police to attend the postmortem examination. In addition to the professional resources outlined in the [Key roles](#) section, the SIO and the coroner will also need to consider if any additional persons should attend. However, it should be noted that this is for the coroner to authorise under Regulation 13.

The coroner has the discretion to allow others to attend under Regulation 13. It should also be noted that a suitably qualified medical practitioner may be nominated by the deceased's

²⁰ Forensic Science Regulator Guidance – Legal Issues in Forensic Pathology and Tissue Retention. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

²¹ Further information on this is available from the Equality and Human Rights Commission. <https://www.equalityhumanrights.com/en>

²² The Coroners (Investigations) Regulations, 2013 Regulation 13. <http://www.legislation.gov.uk/ukxi/2013/1629/regulation/13/made>

next of kin, or personal representative to represent them at the postmortem examination, also under Regulation 13.

There may be occasions when the coroner, in accordance with the provisions of Regulation 13 (3) and (4), consents to persons other than those involved in the police investigation to be 'represented' at the postmortem examination by a medical practitioner, or if the person is a medical practitioner, to attend the postmortem examination in person.

Although there is no definition of what 'represented' means, in practical terms, it is suggested that on most occasions, it would be sufficient for the representative to view proceedings from a suitable viewing gallery or area within the postmortem room. This will allow the forensic pathologist, the assisting police staff and other specialists to conduct the postmortem examination in a non-crowded environment. Likewise, this will help minimise health and safety and biohazard risks inherently associated with being present at a postmortem examination, and prevent any potential compromise to the police investigation.

In situations where it is known that 'representatives' other than those involved in the police examination will be attending the postmortem examination, it may be useful to discuss with the forensic pathologist and coroner beforehand the reason for their attendance, and where they are expected to view the proceedings. The 'representative' can then be suitably briefed on this before the postmortem examination commences.

Although the personnel attending a postmortem examination will vary depending on the nature of the case being investigated, they will typically consist of:

- the forensic pathologist
- SIO or deputy
- anatomical pathology technologist (APT)
- crime scene manager (CSM)
- CSI personnel
- police photographer
- exhibits officer
- other forensic experts.

The SIO should consider whether or not they should attend the postmortem examination in person, but should always appoint a senior member of the management team to attend if they are unable to attend or decide not to. This will ensure that the SIO is always directly involved if there are interpretational issues or findings that could significantly alter the course of the investigation.

In some cases, the SIO may wish to send their deputy, who must be comprehensively briefed regarding their role and the evidential issues. The SIO or their nominee should attend at the start and the end of the postmortem examination in order to be briefed by the forensic pathologist.

An exhibits officer will be required to record details of all exhibits retained, including human tissue.

Health and safety

There may be occasions when a deceased person being examined is known or suspected to be infected with an infection, which would represent a serious risk to the health and safety of those present at the examination.²³ Such infections include the viral haemorrhagic fevers (eg, ebola, smallpox, lassa fever). A detailed list of dangerous pathogens and other agents is provided by the health and safety executive.²⁴

In such cases, the SIO should be guided by the forensic pathologist regarding any special precautions that should be taken. However, as a general rule, it is recommended that postmortem examinations where serious infections (eg, viral haemorrhagic fevers) are present should not take place.

Lawful seizure at a postmortem

In the police investigation of suspicious death cases, as with all criminal investigations, it is essential that the appropriate lawful power of seizure is used. This is to enable continued lawful retention of evidence by the police and to bring it under the purview of such legislation as the Criminal Procedure and Investigations Act 1996 for disclosure purposes.

The main sources of law relating to powers of seizure at a postmortem examination by police are provided under section 19 of PACE, or less frequently used common law powers, used to seize evidence relative to the investigation of crime. In rare cases it may be necessary to use a section 8 PACE warrant (see [Samples](#)).

As section 19 of PACE can only be used when a constable is lawfully on premises, seizure of items when not on premises can be made using common law powers.

²³ Managing infection risks when handling the deceased.

<http://www.hse.gov.uk/pubns/priced/hsg283.pdf>

²⁴ Advisory Committee on Dangerous Pathogens: The Approved List of biological agents.

<http://www.hse.gov.uk/pubns/misc208.pdf>

Material taken by the forensic pathologist at a postmortem examination on behalf of the coroner (although there are no clear coronial powers stated in legislation, the MoJ view is that coroners' powers of seizure at postmortem are 'inferred') may subsequently be seized under police powers if required and the conditions set by PACE are met.

Human tissue seized under police powers can be lawfully retained under PACE²⁵ or common law and will automatically engage police obligations of retention and disclosure to the Criminal Procedure and Investigations Act 1996 (CPIA) (see [Retention of material after postmortem examination](#)).

In summary, it is advised that PACE is used to seize all exhibits from the deceased at the scene (if on premises) and at the postmortem examination. If the deceased is not in premises, common law police powers should be used (see [Samples](#)).

The coroner must be kept informed in writing when material is taken from the body during a postmortem examination.

For further information on the powers of seizure and retention of material at postmortem examinations see Forensic Science Regulators Guidance – 'Legal Issues in Forensic Pathology and Tissue Retention'.²⁶

Samples

Based on the initial crime scene assessment and available information, and following discussion with the forensic pathologist and CSM, the SIO determines the exact sampling requirements for investigation. Samples may include:

- anal, vaginal, oral, penile, and in special circumstances, nasal swabs
- fingernail cuttings
- head and pubic hair (toxicology/trace evidence)
- blood and urine (toxicology)
- stomach contents (toxicology/time of death)
- sample of blood taken at the time of admission to hospital
- swabbing of exposed fractures for foreign debris, eg, head fractures

²⁵ Police and Criminal Evidence Act 1984, section 22.
<http://www.legislation.gov.uk/ukpga/1984/60/section/22>

²⁶ Forensic Science Regulator Guidance: Legal Issues in Forensic Pathology and Tissue Retention.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

- tissue sections for histology
- bile (in special circumstances)
- ocular fluid (toxicology, and in special circumstances, time of death)
- liver, lung, brain, fat tissue (in special circumstances). The Forensic Science Regulator is currently developing guidance for cadaveric sampling.

Recording retained material

A single list of all material retained at the postmortem examination, regardless of under which authority it is taken (ie, police or coronial), should be produced and provided to the SIO, forensic pathologist and the coroner. This list must be updated if material is returned to the body or next of kin, sent for further examination or returned to the coroner. The list must form a comprehensive history of the material, which is auditable and from which the origin of the material can be ascertained. This includes material taken at any subsequent postmortem examinations.

Recording the postmortem examination

The forensic pathologist, in consultation with the SIO and other experts, must make a record of all injuries and assess their significance. A trained photographer should be used at the direction of the forensic pathologist, SIO and CSM.

Visual images, including video (especially of a specific process) can be useful in facilitating the review of a postmortem examination. In particular, they can:

- Create as near a complete record of the processes as possible.
- Facilitate further examination of the body in its original state.
- Assist the process of a second postmortem examination.
- Assist the SIO and the investigation team in understanding crucial elements of the postmortem examination in specific cases.
- Record the removal of ligatures and other devices from the body, where possible. Such a visual recording might also assist in a virtual reconstruction, where deemed appropriate.

The body should be photographed while fully clothed and particular attention should be paid to injuries and damage to the clothing. Care must be taken when removing clothing from the victim, as valuable evidence may be altered or destroyed. Undressing the body should only take place in the presence of the forensic pathologist. All clothing should be fully searched and any items found should be photographed and properly exhibited.

When still photographs are taken, it is essential to obtain detailed images of external and internal injuries without and with a scale, in a logical order with a covering index.

The following general principles apply to postmortem photography:

- Photographs at the postmortem examination should be taken under the direction of the forensic pathologist, SIO and CSM.
- All individual/groups of injuries should be photographed without and with a scale.
- Where possible, photographs should be taken at an angle of 90 degrees to the injury or group of injuries.
- In addition to directed photos, the SIO may request more specific photographs.
- Where the identity of the victim is unknown, photograph the victim's clothing, tattoos, marks and unusual scars. Care must be taken when photographing clothing in the mortuary because of the dangers of contamination. Clothing can always be described in detail at the postmortem examination and photographed after the conclusion.
- Copies of any photographs taken should be made available to the coroner.

External examination of the body may reveal surface fragments of material, such as flakes of paint, glass fragments, fibre, blood, semen or hairs embedded in wounds. Foreign material may also be present under the fingernails and may include hairs, fibres, skin fragments and blood from the possible suspect. It is essential that these items are correctly photographed, recorded, seized, packaged, labelled and retained.

Body maps may be used to record the position of injuries, marks, scars and any other distinguishing features. It is important that only one set of contemporaneous notes (with or without diagrams) is taken and produced by the forensic pathologist.

Consideration should also be given to using specialist photography and alternative high intensity light sources to enhance specific injuries (seek advice from the CSM or CSI). If there are a number of bruises or other injuries, it is good practice that the forensic pathologist gives each of these an identifying number when photographed for ease of reference. All photographs, notes and diagrams (such as body maps) made at the postmortem examination, including any photographs taken by the forensic pathologist themselves, may be disclosable under the CPIA 1996 and the Criminal Procedure Rules, Part 19.

Exhibits

Where a weapon is found impaled in the body, the SIO, forensic pathologist and CSM will need to assess the risks involved in removing the weapon at the scene before the body is transferred to the mortuary or leaving it in situ for removal during the postmortem examination. The SIO should consider the potential risks of taking recovered weapon exhibits to the mortuary to avoid contamination issues.

Exhibits must be properly packaged to avoid injury and contamination to those handling the exhibit and to ensure continuity, but should also, where possible, be clearly visible. A packaged knife must allow the width and length to be measured. A photo taken of the weapon in situ (with and without scales) must be taken. This photograph should be available for viewing by the forensic pathologist before commencing any postmortem examination.

Other material may be of mutual interest to the forensic pathologist and the investigative team. It should, therefore, be preserved either at the crime scene or during the postmortem examination. Examples of such articles include:

- ballistic projectiles
- extraneous items such as hairs, fibres, blood or semen on the body or clothing
- ligatures (do not cut or undo the knot)
- needles.

The SIO should ensure that:

- All items/samples are seized using police powers and exhibited and reviewed after the postmortem examination.
- If items/samples are retained, the reasons must be clearly documented. They may be released to the coroner for the coronial investigation and then reviewed for disposal or seizure, or retained for an unsolved criminal investigation and/or disposed of, taking into consideration the next of kin's wishes. The family should be informed after the conclusion of the investigation or the end of the criminal process in accordance with the CPIA and force policy.

The postmortem examination report

Initial findings

The SIO, or deputy SIO, should discuss the findings with the forensic pathologist at the time of the postmortem examination. It is essential that the SIO ensures that the forensic pathologist is kept up to date with any investigative developments, even after the report has been provided to the coroner and agreement has been given for it to be supplied to the SIO. If information subsequently revealed by the investigation impacts on the conclusions contained in the postmortem examination report, the forensic pathologist should produce a supplementary report incorporating that information and any revised conclusions.

Content of the report

The postmortem examination report should include:

- The information the forensic pathologist received in advance of the postmortem examination.
- Those present during the postmortem examination.
- Confirmation that the data justifying the decisions and actions taken at the examination of the scene and the body have been retained.
- Details of all investigations made either personally or by submission to a laboratory or subspeciality expert for a report.
- Conclusions drawn and an explanation for them. Where unusual features are found but are concluded as irrelevant, the forensic pathologist must explain why the finding has been discounted.
- The reasoning for why a particular explanation is favoured where findings are open to alternative explanations.
- The reasoning that supports the conclusions, detailing all the material drawn on to support that reasoning, including reference to pertinent and current literature.
- All samples that have been retained by the forensic pathologist, whether or not these have been assigned police exhibit references.

- Any other information required under CPS guidance on expert witnesses' obligations on disclosure²⁷ and the Forensic Science Regulator's Expert Report guidance.²⁸

Production of the report

When the postmortem examination is complete, the forensic pathologist will produce a written report for the coroner.

The forensic pathologist should be supplied with a record of all the exhibits taken and their relevant exhibit numbers at the completion of the postmortem examination so that an accurate reference can be made to them in the postmortem report.

The forensic pathologists report shall not be supplied to anyone else, including the SIO, without authorisation from the coroner.²⁹ Once the coroner has agreed, a section 9 Criminal Justice Act 1967 statement will be provided to the police. In practice however, coroners usually consent to the forensic pathologist providing the SIO with a copy of the report.

The report should be produced as soon as possible (subject to receipt of all supporting subspeciality pathology and other medical and scientific reports) within an agreed timescale. Some aspects of the postmortem examination that require further specialist pathological examination, such as examination of the brain, may take a considerable time to complete and could delay the final report.

When the report is received, the coroner will provide copies of it to all those having a proper interest, including the SIO and any person who has been charged in connection with the death (and to their legal advisers). Any photographs or video recordings taken at an examination will also be made available by the police. The deceased's next of kin should also be advised that the report is available unless the next of kin is thought to be a suspect in the death.^{30 31}

²⁷ CPS Disclosure Manual Annex K.

http://www.cps.gov.uk/legal/d_to_g/disclosure_manual/annex_k_disclosure_manual/

²⁸ FSR Expert Report Guidance FSR-G-200. <https://www.gov.uk/government/publications/expert-report-content>

²⁹ The Coroners (Investigations) Regulations 2013, Part 3, Regulation 16.

<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/16/made>

³⁰ Forensic Science Regulator's Guidance (2012) Legal Issues in Forensic Pathology and Tissue Retention.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

³¹ Criminal Practice Directions and the Criminal Procedure Rules Part 19.

<http://www.justice.gov.uk/courts/procedure-rules/criminal/docs/2015/crim-proc-rules-2015-part-19.pdf>

Rapid interim accounts

In order to utilise the information revealed in other aspects of the postmortem examination, the SIO should ask the forensic pathologist to provide a rapid interim account in writing to the coroner within fourteen days of the postmortem examination.³²

The SIO should be aware that the results of any subsequent tests may significantly alter the findings within any interim or preliminary report, and that the conclusions of the final report could differ from earlier ones provided.

Delays

In complex cases, the forensic pathologist should provide the coroner and SIO with a provisional timetable for the production of the final report. When the postmortem examination report is expected to be delayed, the SIO should liaise with the coroner and forensic pathologist. Also, in order to assist the courts and the CPS with case management (in accordance with the Criminal Procedure Rules), SIOs should ensure that the CPS is informed at the earliest possible opportunity, concerning any anticipated delays in respect of the forensic pathology evidence, using the appropriate MG form.

³² Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland (section 7.2.2.). <https://www.gov.uk/government/publications/standards-for-forensic-pathology-in-england-wales-and-northern-ireland>

Interpreting postmortem examination results

The role of the forensic pathologist

The postmortem examination findings represent a vital component of the investigative process so it is important for the SIO to consider the significance of the findings. The forensic pathologist can contribute to the interpretation of the postmortem examination results by:

- Attending conferences called by the police or the CPS to discuss the postmortem report and/or other issues involved in the case.
- Clearly explaining all the findings and their interpretation in the context of the case.
- Considering alternative explanations, testing alternative hypotheses, drawing conclusions and giving advice based on the facts of the case and established scientific principles.
- Stating what is required before additional conclusions can be drawn, and requesting those requirements are fulfilled before any further opinions are given.
- Identifying, clarifying and summarising areas of agreement and disagreement.
- Requesting feedback to determine whether those involved in the investigation understand the outcomes of the consultations.

Issues for consideration

The SIO may wish to explore the following issues:

- Cause of death.
 - Which injury was responsible for death?
 - If there are multiple injuries, which one was the fatal injury?
 - What is the significance of injuries?
 - What degree of force used?
 - What medical intervention was involved, if any?
- Time of death.

- This is useful for setting 'Relevant Time' enquiry parameters, eg, to assist with a period of time to review CCTV footage.
- It should be noted that the various methods suggested to estimate postmortem interval are vast, and therefore a testament to the inherent inaccuracy of the methodologies used in this area.
- This data may inform the investigation but should not be used to make final decisions about who may have committed the offence.
- Toxicology.
 - Is there evidence of victim drug abuse?
 - Was the victim drugged or intoxicated?
 - Stomach contents may give evidence of lifestyle or sequence of events.
- Level of attack.
 - This is likely to give an indication of the mode of attack, the degree of force used and over what period.
 - Was the victim capable of 'fight, flight or freeze'?
 - What was the likelihood of the offender being injured?
 - Was there evidence of postmortem violence?
- Injury analysis.
 - What is the number and type of injuries?
 - How were the injuries caused?
 - Is there evidence of defence wounds?
 - What was the timing of injuries in relation to the time of death?
 - Is there evidence of gratuitous violence?
 - Were the injuries caused before or after death?
 - Are the injuries consistent with accounts of witnesses?
 - Is there evidence of bodily contact, eg, bites and scratches?
 - Consideration should also be given to exploring the support and advice offered by the National Injuries Database, accessed via the NCA Major Crime Investigative Support team (mcis@nca.pnn.police.uk, 0845 000 5463).
- Body deposition site.
 - Is there evidence that the deposition site was not the murder site?

- Disguise cause.
 - Have attempts been made by the offender to disguise the cause of death?
- Sexual motivation.
 - Is there evidence of sexual interference, such as rape, oral sex, shaving of pubic hair, penile penetration, clothing removal and semen deposits?
 - However, the absence of such evidence does not exclude a sexual element.
- Weapon analysis.
 - What type of weapon was used?
 - How many weapons were used?
 - Is there any correlation with any potential weapons found at the scene?
- Victimology.
 - Are there hate crime considerations?
 - What was the general health of the victim?
 - Is there evidence of other recent assaults?
- Size and physique of the victim.
 - Is there evidence of the victim being restrained before death?
 - Is it likely that the victim could have posed a threat after being injured? The position of defence wounds may assist.
- Similar incidents.
 - Have there been any recent or historic instances?
 - Have intel and command/control checks been done for other similar local instances?

Defence and second postmortem examinations

Second postmortem examinations

A coroner, at the request of the defence and in the interests of justice, will usually agree to a further postmortem examination by another forensic pathologist. However, where no offender has been identified or charged, a second, independent postmortem examination can be conducted allowing the release of the body (if appropriate) within 28 days of the discovery of the body in anticipation of any future defence requirements. This will help to facilitate the early release of the body.³³

The coroner will not usually object to a further postmortem examination being conducted for family members or other persons charged with having caused or contributed to the death, provided that such further examinations are conducted in the interests of justice and without undue delay, with proper notice being given to the coroner. The coroner may request that multiple requests for further postmortem examinations be conducted jointly.

Whenever a postmortem examination is required on behalf of the defence, details of the forensic pathologist acting on behalf of the defence should be provided to the coroner without delay, as this will assist in the early release of the body. It may be useful to visually record (by video) the initial postmortem examination if a second postmortem examination will not take place for whatever reason.

Use of a non-forensic pathologist

Second postmortem examinations may be conducted by a non-forensic pathologist. Such pathologists must adhere to the same standards as a forensic pathologist. Defence solicitors will need to establish, for example, the nature of the wounds and the cause of death. They will also need to examine the first postmortem examination report, photographs and any other relevant items. Investigators should ensure that this documentation is available, subject to the coroner's prior approval.

³³ Home Office Circular 30/1999 Post Mortem Examinations and the Early Release of Bodies.
<https://webarchive.nationalarchives.gov.uk/20040722015642/http://www.homeoffice.gov.uk/docs/hoc9930.html>

Attendance at a second postmortem examination

The original forensic pathologist should, whenever possible, be present to discuss their findings from the first postmortem examination. The SIO (or a representative) and a photographer should also be in attendance.

Samples

On occasions, samples from the body are sent by the forensic pathologist to a forensic pathologist acting for the defence. The forensic pathologist should seek permission from the SIO to do this, and mechanisms should be put in place to ensure that such samples are returned to facilitate disposal in an appropriate manner. Forensic pathologists should also be mindful of the requirement³⁴ to notify the coroner of the material that they preserve, and of provisions in the Human Tissue Act 2004.

There may be occasions when the forensic pathologist acting for the defence wishes to send human tissue for examination to an expert outside of the jurisdiction. However, it should be noted that the export of evidence can give rise to particular problems:

- The material will be outside the control of the police or coroner on whose authority it is held.
- The material is no longer under the control of the courts in this jurisdiction.
- It will be difficult to supervise the actions of those in possession of the material.
- The risk of the material being lost is increased.
- The maintenance of continuity will be more difficult.
- The material will be subject to the laws of the country to which it is exported, and this creates a risk of satellite litigation.

It is therefore recommended that human tissue is not exported outside of the UK jurisdiction. All human tissue should be accounted for and capable of audit.

Postmortem examination report

Any report prepared for a solicitor acting for a defendant is likely to be a legally privileged document and not available to the police. However coronial practice does vary and some coroners may choose to disclose the defence report to the police. This practice is to be

³⁴ The Coroners (Investigations) Regulations 2013 Part 3, 14 (1).
<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/14/made>

encouraged, as a difference of opinion between the first and second forensic pathologist can be more speedily resolved, assisting the defence, prosecution and the coronial inquiry.

The coroner may decide to provide the police with a copy of the report from any second postmortem examination that they request in the absence of any charged suspects, and coroners may request additional postmortem examinations if there are significant differences of opinion between the first and second postmortem examination. The coroner will retain the second report, and if an arrest in connection with the death is subsequently made, they will provide a copy of this to the defendant or their legal representatives.

There are mixed opinions amongst coroners on whether second and subsequent postmortem examination reports should be shared with the police, or retained by the coroner and served only on the defence in cases where a defendant has been charged. However, it would seem reasonable that in the event of a conflict between the first postmortem and subsequent examinations, the coroner should consider ordering another postmortem examination in the interests of justice and to settle the true cause of death.³⁵

³⁵ Dorries, C. P. (2014). *Coroners' Courts: a guide to law and practice* (Third Edition). Oxford University Press. (no link available)

Release of the body

Release of the body

Subject to the interests of the criminal justice system, it is the responsibility of all agencies to treat the early release of the body as a priority.³⁶ Where this cannot be done within 28 days, the coroner must notify the next of kin or personal representative of the deceased of the reason for the delay.³⁷ It should also be a priority for the SIO and FLO to help the family to cope with their grief.

The SIO in consultation with the coroner should consider the following issues when contemplating the release of a body:

- Whether the identification of the victim is in dispute.
- The evidential value of retaining the body.
- The needs of the investigation.
- The need for a defence or second post mortem examination when the identity of the offender is unknown.

The coroner will not usually release the body unless all those having a proper interest confirm in writing that they have no objection to the body being released. The coroner will then notify their intention to release the body, in writing, to all such persons who have not yet confirmed their interest.

Likelihood of imminent arrest

If the SIO advises the coroner that a person is likely to be arrested within twenty-eight days of the discovery of the homicide, they will not release the body until the person is charged, or until the expiration of that period – whichever is the shorter. The coroner will serve, on any person who is charged, a copy of the report of the initial examination and any records of it. However it should be noted that in practice there can be a considerable period of time before this can be done. The forensic pathologist may have to await the outcome of specialist investigations before he or she can complete his or her report. It may be possible, initially,

³⁶ Home Office Circular 30/1999 Post Mortem Examinations and the Early Release of Bodies.
<https://webarchive.nationalarchives.gov.uk/20040722015642/http://www.homeoffice.gov.uk/docs/hoc9930.html>

³⁷ The Coroners (Investigations) Regulations Part 5, Regulation 20.
<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/20/made>

(to facilitate performance of the second post mortem examination) only to release the provisional findings of the forensic pathologist.

Where the coroner is initially informed that a person may be charged within twenty-eight days of the discovery of the homicide and it subsequently appears unlikely that any person will be charged, the SIO should inform the coroner at the earliest opportunity.

Religious and other considerations

Consideration should be given to cultural and religious beliefs held in certain communities. Some faiths, for example, require that burial should occur within 24 hours and in any case as soon as practicable following death. However, the requirements of the criminal justice system must override family wishes.

Communication with the family

The SIO and the coroner should be proactive in pursuing an early resolution of all postmortem examinations and ensure that the conclusion of the body examination process has been communicated effectively to the family via the coroner's officer and the FLO in order to allow the funeral to take place as soon as possible.

Families will want to know details of when the deceased will be released for the funeral and subsequent burial/cremation. The FLO should facilitate this request through the coroner's officer after consultation with the SIO. The coroner has lawful control of the body and the decision for release ultimately rests with them, therefore the SIO should ensure that the coroner is consulted and advised about the progress of enquiries.

Families should be asked if they wish to wait to receive the body complete (this could take a long time), or if they would prefer the body (even if not complete) to be returned as soon as possible. However, they should be made aware that some material from the body may be preserved for further examination or evidential reasons for many months or years. For example, if examination of the brain is necessary, it may be in excess of six weeks before a report is available. In paediatric cases, delays may be even longer.

Retention of material after postmortem examination

Continuity

SIOs should be aware that material taken from the body and seized as part of a criminal investigation (under section 19 of PACE or under common law) is subject to the same level of continuity as any other police exhibit. Because such material may go to specialists and will be out of direct police control, the SIO must ensure that the specialists who handle the exhibit maintain its integrity and continuity.

Notification of preservation of material

The statutory duty to inform the relevant persons about what material has been preserved lies with the coroner.³⁸ The coroner is also responsible for notifying the chief officer of police or prosecuting authority of any period for which the coroner requires material to be preserved or retained.³⁹

Human Tissue Act

Although the Human Tissue Act 2004 does not apply to criminal justice samples (by virtue of section 39 of that Act), the Home Office and the Human Tissue Authority advise that the principles of the Act and relevant code of practice should be followed.

The SIO must be confident of:

- A lawful power to seize.
- A lawful purpose to examine.
- A clear policy for disposal.
- The fact that the coroner has been informed in writing of all material preserved.⁴⁰

³⁸ The Coroners (Investigations) Regulations 2013.
<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/15/made>

³⁹ The Coroners (Investigations) Regulations 2013.
<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/14/made>

⁴⁰ The Coroners (Investigations) Regulations 2013.
<http://www.legislation.gov.uk/ukxi/2013/1629/regulation/14/made>

The SIO should consider whether an image or histological samples are sufficient when deciding whether to retain human tissue during the police investigation, subsequent trial or appeal. Material retained must be kept in secure storage and under suitable conditions. The location of material must be properly recorded, indexed and easily accessible.⁴¹

Criminal Procedure and Investigations Act

The CPIA 1996 states that any material obtained in the course of a criminal investigation, which may be relevant to the investigation, should be retained until the end of criminal proceedings and the risk of any appeals has passed. In general terms, this may be interpreted as the release from detention of a person convicted of homicide. Retention may, however, be required for longer than the CPIA provisions, eg, a requirement by the Criminal Cases Review Commission.

Human Tissue Audit

Between 2010 and 2012, the Home Office Forensic Pathology Unit oversaw a national audit of human tissue in England, Wales and Northern Ireland which made a number of recommendations, including the following which both ACPO and the Home Office strongly advise are adopted by forces.⁴²

- A debrief should take place at the end of each suspicious death or homicide inquiry to decide on the question of tissue retention. This should involve (as appropriate) the police, coroner and the forensic pathologist and be documented in a recoverable form. This does not need to be a physical meeting, but clear decisions need to be made and recorded in consultation by whatever means concerning the retention and disposal of human tissue.
- In cases where it is determined following postmortem examination that the death is not suspicious and there is no further police investigation, a clear process should be followed between the police and the coroner to ensure material is suitably dealt with.

It is often the case that where a death is initially considered suspicious, the postmortem examination reveals it is not. When a decision is made not to pursue a criminal investigation, a discussion will be held between the coroner and the SIO regarding the

⁴¹ Forensic Science Regulator (2014) Legal Issues in Forensic Pathology and Tissue Retention. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

⁴² ACPO (2012) Report on the Police Human Tissue Audit. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115689/police-human-tissue-audit.pdf

tissue already taken from the body using police powers. In such cases a clear policy needs to be agreed with the coroner on whether the seized material is required for coronial purposes, or whether the tissue can be returned to the body before burial or cremation.⁴³

- SIOs must review the retention of material, the samples seized and the continuity of exhibits periodically during the investigation of a suspicious death/homicide, specifically at the stage when the body of the deceased is being released to relatives and at the post-trial debrief. Material should not be disposed of without prior consultation with the coroner who may require material for the purpose of their duties at an inquest and, when appropriate, with the CPS.
- There needs to be close communication between the police, the coroner, the forensic pathologist and the CPS regarding the disposal of material. In consultation with the coroner, the SIO should review the continued retention of material and samples seized periodically during the investigation and specifically at the post-trial debrief.
- Forces are advised to adopt a policy whereby there are periodical reviews of retained material, as reliance cannot be made on those originally investigating homicide cases due to turnover and retirements of staff. Force review teams should be tasked with implementing this recommendation.

⁴³ ACPO (2012) Report on the Police Human Tissue Audit (Recommendation 2) – see note 44.

Disposal of material held on the authority of the police

The police investigating homicide cases are sometimes required to retain evidence, including human tissue, for much longer periods than in coroner's cases. An approach must, therefore, be adopted that:

- allows an effective means of dealing with retained evidence
- does not place an undue burden on police resources
- respects the wishes of the family of the deceased.

Material may also be held for a considerable period and SIOs must be aware that it may be inappropriate to return the material to the family after such a period.

In order to avoid previous problems (where human tissue has been retained without proper authority or purpose), a formal and documented debrief should take place between the SIO, coroner, forensic pathologist and where relevant, the CPS. This debrief does not have to be a physical meeting, but could be a conversation or correspondence in whatever form to ensure that all interested parties agree to the disposal or retention strategy. Decisions made at this debrief stage should be documented in a recoverable form.⁴⁴

It is good practice at the beginning of an investigation into a death to issue a major incident room (MIR) standard (or 'perennial') action to deal with seized tissue at the end of the inquiry. This stands as a reminder, as the tissue could be required for many months or even years.

Regarding the disposal of pregnancy remains, which may have been retained in connection with a criminal inquiry, although the seizure will have been made under the relevant provisions of PACE, disposal in these extremely sensitive cases should be conducted following (where possible, and dependant on the circumstances of the case) the spirit of the Human Tissue Authority publication 'Guidance on the disposal of pregnancy remains following pregnancy loss or termination'.⁴⁵

⁴⁴ ACPO (2012) Report on the Police Human Tissue Audit (Recommendation 1).

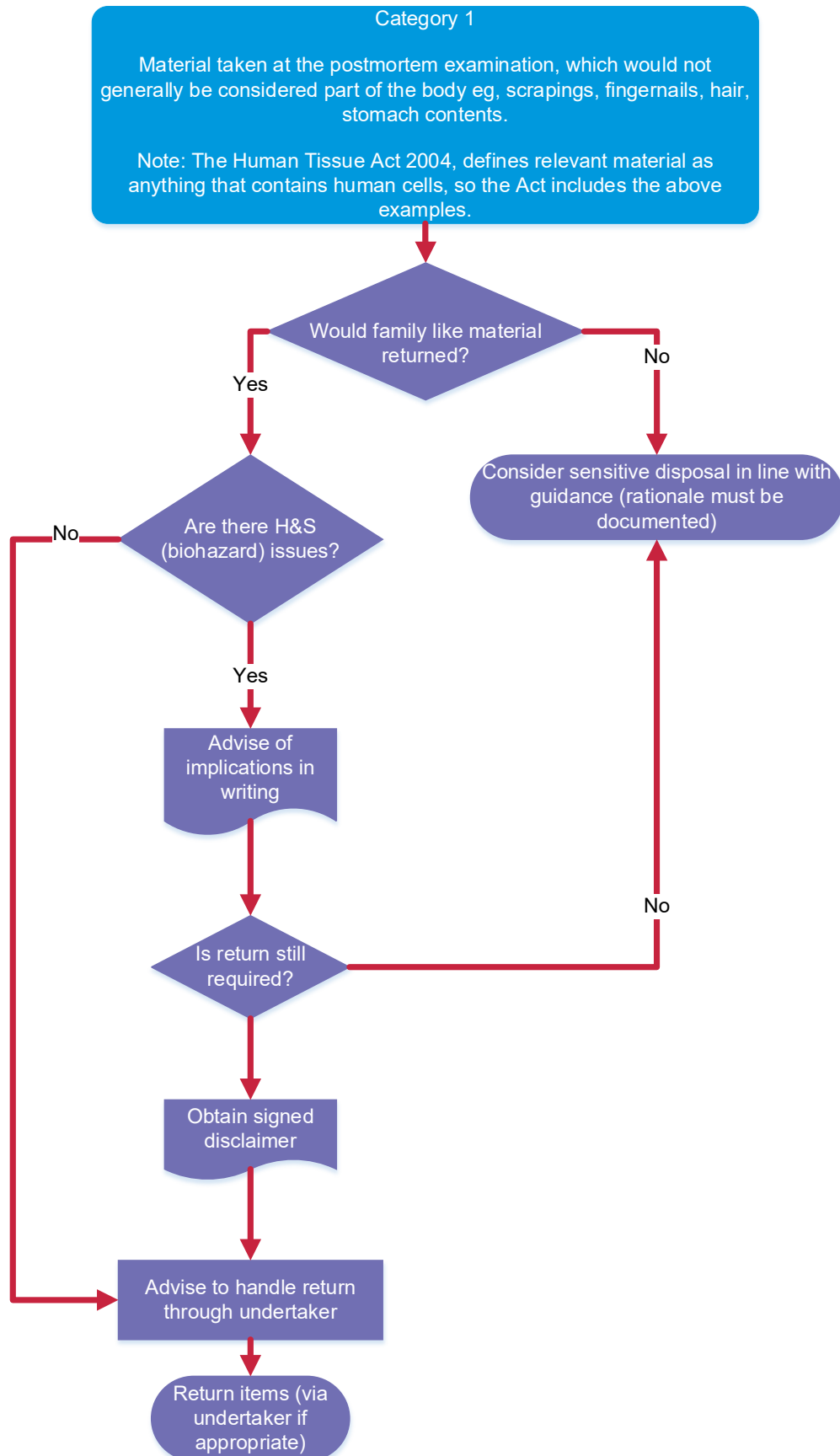
⁴⁵ https://www.hta.gov.uk/sites/default/files/Guidance_on_the_disposal_of_pregnancy_remains.pdf

Disposal of human tissue no longer required for a criminal justice purpose

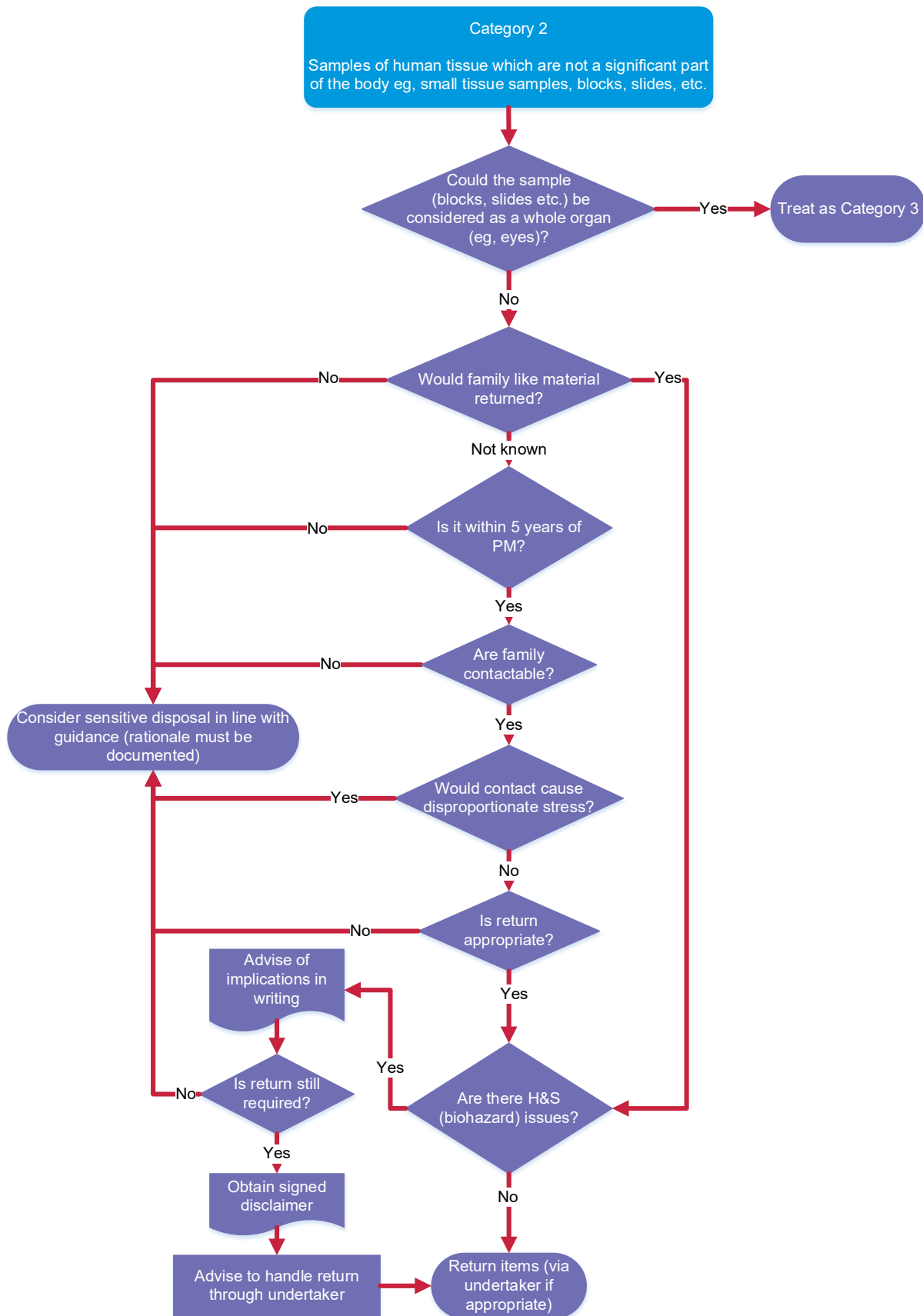
Material held by the police can be divided into three categories as per the Forensic Science Regulator's Guidance.⁴⁶ How material is disposed of depends on which category it falls into. Each investigation should be considered on a case-by-case basis. The following flowcharts, in conjunction with the National Decision Model, will assist in the decision-making process.

⁴⁶ Forensic Science Regulator (2014) Legal Issues in Forensic Pathology and Tissue Retention. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

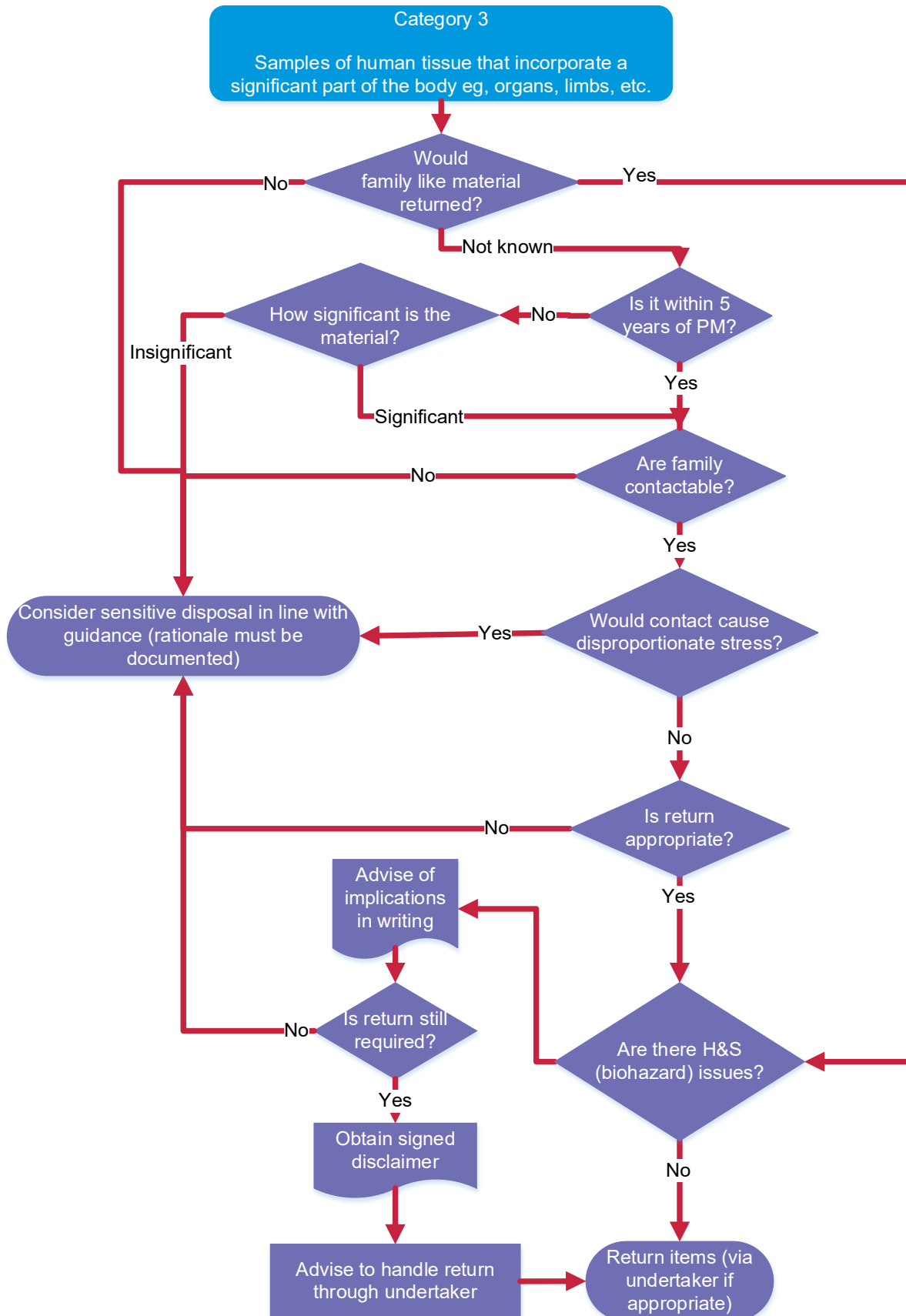
Category 1



Category 2



Category 3



Sensitive disposal

Where material is to be disposed of, this must be done in a sensitive manner, either by incineration or cremation.

Incineration

Incineration facilities can be provided by the local hospital which will incinerate material in a dignified and appropriate manner. The coroner's officer or Trust will be able to advise on the process to be followed.

Cremation

Cremation can only take place when regulated by the Cremation (England and Wales) Regulations 2008. The cremation of body parts is only permitted following authorisation by a medical referee at a crematorium.⁴⁷

In order for a medical referee to authorise cremation, an application must have been made using the form Cremation 2⁴⁸, and evidence must be produced that the material was removed for a postmortem examination and is no longer required. Applications are usually made by the next of kin or executor to the deceased, but they can be made by any near relative over the age of 16. If it is not possible to contact the next of kin or any near relatives, the application can be made by any other person as long as the medical referee is satisfied that they are the correct person to make the application.

A funeral director will normally facilitate this process, but it may not be possible to pursue cremation if all the relevant information is not available or the medical referee is not satisfied that there is a suitable applicant.

It is not envisaged that a religious ceremony would occur if the religion is not known, and an inappropriate ceremony would cause more offence than none.⁴⁹

The ashes should be given to the person who applied for the cremation (usually the next of kin, executor for the deceased or a near relative), but if the applicant does not want the

⁴⁷ Cremation (England and Wales) Regulations 2008.

<http://www.legislation.gov.uk/uksi/2008/2841/contents/made>

⁴⁸ Cremation (England and Wales) 2008 Regulations, Schedule 1.

<http://www.legislation.gov.uk/uksi/2008/2841/schedule/1/made>

⁴⁹ Forensic Science Regulator (2014) Legal Issues in Forensic Pathology and Tissue Retention, para 14.1.13.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314874/Legal_Issues_in_Forensic_Pathology_and_Tissue_Retention_Issue_3.pdf

ashes, or the cremation was applied for by someone other than the next of kin, the cremation authority can scatter the ashes in a garden of remembrance at the crematorium.⁵⁰

⁵⁰ Cremation (England and Wales) Regulations 2008, Regulation 30.
<http://www.legislation.gov.uk/uksi/2008/2841/regulation/30/made>

Further reading

Legal

Law Commission Final Consultation Paper on Forensic Experts.

https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11j5xou24uy7q/uploads/2015/03/lc325_Expert_Evidence_Report.pdf

The Government's response to the Law Commission report: "Expert evidence in criminal proceedings in England and Wales" (Law Com No 325).

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260369/govt-resp-experts-evidence.pdf

Police

ACPO (2008) Family Liaison Officer Guidance. London: NPIA.

<http://library.college.police.uk/docs/acpo/FLO-guidance-2008.pdf>

Scott, I. (2010) Organ and Tissue Donation Opportunities during Police Investigations into Suspicious Deaths or Fatal Road Traffic Collisions. *The Journal of Homicide and Major Incident Investigation*, Volume 6, Issue 1.

http://library.college.police.uk/docs/J_Homicide_MII/J_Homicide_6.1.pdf

Doyle, M. (2011) Non-suspicious Death (Or Is It?): The Duties and Responsibilities of the Police. *The Journal of Homicide and Major Incident Investigation*, Volume 7, Issue 1.

http://library.college.police.uk/docs/J_Homicide_MII/J_Homicide_7.1.pdf

Medical

Pathology Delivery Board: Protocol for Membership of the Home Office Register of Forensic Pathologists v10.0.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/115693/ho-reg-forensic-pathologist.pdf

Faculty of Forensic and Legal Medicine: Recommendations for the Collection of Forensic Specimens from Complainants and Suspects, January 2019.

<https://fflm.ac.uk/wp-content/uploads/2019/01/Recommendations-for-the-collection-of-forensic-specimens-from-complainants-and-suspects-Jan-2019.pdf>

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