HTA Research Licence 12196

April 2025

Quality Manual

Policy on Using, Storing & Disposal of Human Tissues & Samples to meet the requirements of the Human Tissue Act (2004)

Safety Office
HSD086B (rev 8)

UNIVERSITY OF CAMBRIDGE

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Quality Manual

Policy on Using, Storing & Disposal of Human Tissues & Samples to meet the requirements of the Human Tissue Act (2004)

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Reviewer: HTA (Research) Committee

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Version History

Version	Date	Changes made
V7	01/2024	Change of DI to S Hoer, LHC to Martin Vinnell
		Update to Licence chart to include Epidemiology and changes of PDs
V8	04/2025	Addition of SOP 9-Adverse Event and Incident Reporting for Relevant Human Material
		Update to Licence Chart to include change of PD for Biochemistry

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Introduction

The University is committed to following the Human Tissue Authority *Code E on Research*[1] and the *Code E Research Standards and Guidance* for the use of human tissue in its research programmes[2]. It is mandatory for all areas involved in the retrieval, storage, use and disposal of human tissue to work to the defined Codes of Practice and to be licenced by the Human Tissue Authority (HTA), the competent authority for the Human Tissue Act 2004 (HT Act).

This Quality Manual (QM) outlines the over-arching University Policy and provides examples of Standard Operating Procedures (SOPs) for the collection, use, transport, storage and disposal of Human Tissue at the University and what is expected by each of the licenced premises. It outlines the responsibilities of staff working with human tissue, the role of the Designated Individual (DI) and Persons Designate (PDs) under the HTA Licence and the accountabilities of the PDs and Principal investigators (PIs).

Over-arching SOPs are provided in this QM, as well as an example pro-forma consent form and patient sheet for modification by research staff in the collection of human tissues. An example internal compliance audit questionnaire template is also provided which follows the four HTA Research Standards to assist PDs/PIs in organising their Departmental documentation as required by the HTA.

Purpose and Scope

This QM Policy sets out a number of guidelines and specific procedures that should be followed by all those engaged in research activities involving relevant material under the HT Act. The principles, guidelines and documented procedures in this Policy apply to all researchers on the University HTA Licence (12196) who obtain, use and store HTA-relevant human materials for the purposes of research.

There are some key considerations for researchers who are intending to obtain, use and/or store human tissues and samples (relevant material as defined in the HT Act) namely legal, ethical and practical, and these are covered in this document.

Policy

It is the policy of the University of Cambridge that the highest legal, ethical and practical standards are employed for all aspects of research conducted, by all those obtaining, using and storing human HTA-relevant material.

Guiding Principles

The guiding principles are:

- Research should only be undertaken if the potential benefits outweigh any potential risks to the donors of the samples.
- The human body and its parts should be treated with respect, confidentiality and an awareness of cultural and religious differences between donors.
- Samples of human material may only be used if proper consent has been obtained in accordance with the HT Act[3].
- Samples of human material for use in research should be treated as gifts.
- The use of the human body and its parts shall not give rise to financial gain.
- In some cases, before conducting a study on any human materials, the approval of a recognised (NHS) Research Ethics Committee (REC) must be obtained. This means that a project must also have a sponsor and therefore an organisation that is taking overall responsibility for the management and governance of the research project.

[1] Code E - https://content.hta.gov.uk/sites/default/files/2020-11/Code%20E.pdf
[2] Code E Standards - https://content.hta.gov.uk/sites/default/files/2020-11/Code%20E%20standards.pdf
[3] Code A - https://content.hta.gov.uk/sites/default/files/2020-11/Code%20A.pdf

Responsibilities

Cambridge University HTA Research Licence (12196)

The University of Cambridge is the Corporate Licence Holder of the Research HTA Licence which covers the hub licence located on the Downing site and four satellite licences located at the Old Addenbrooke's site (#1), the New Museums site (#2), the West Cambridge site (#3) and the MRC Epidemiology Sample Facility (#4). The structure of the University HTA Licence and contact details for key personnel are in **Appendix 1a and 1b** respectively.

Licence Holder Contact, Designated Individual & Persons Designate

The University is the Licence Holder. The Director of the Health, Safety and Regulated Facilities Division is the Licence Holder Contact (LHC)[4] and acts as the representative of the University. The LHC does have the right to vary a licence and to nominate the Designated Individual (DI). The DI authorises and supervises the licenced activities. Responsibilities include ensuring that practices and persons carrying out activities under the licence are suitable, that licence conditions are complied with and that information for tracing samples is up to date and correct. Audits against the HTA standards ensure that these conditions are adhered to.

Each Department on Licence 12196 must have an appointed Person Designated (PD) approved by the DI to provide advice and support to the Director/HoD and Departmental PIs on issues relating to human tissue storage and use. The PD must be HTA trained, undertake an annual audit to monitor compliance and report any incidents to the DI.

PDs meet on a bi-annual basis as a formal committee to update the DI and *vice versa*. The Committee is chaired by the DI. An HTA Committee report is provided to the University Sub-committee for Biological Safety and any matters arising are addressed within the University health & safety governance structure. Corporate responsibility for legal compliance ultimately rests with Council and the General Board. The committee structure which gives effect to the implementation of Health and Safety Policy is shown in **Appendix 2**.

Head of Department/Director of Institute

The Head of Department (HoD)/Director has overall responsibility for the appropriate storage and use of human tissue within their Departments/Institutes from a legal and ethical perspective. This is devolved on an operational level to Persons Designated and Principal Investigators.

Principal Investigators (PIs)/Group Leaders and Line Managers

Principal Investigators (PIs) have responsibility for the day-to-day running of their research projects and must have good knowledge of the ethical requirements relating to each area of work. They are responsible for ensuring their group works to the highest legal and ethical standards with regard to the collection, transfer, use, storage and disposal of human tissue through supervision and training.

Researchers, Support Staff and Students

Under the direction of PIs, all Department/Institute members must conduct laboratory work within the highest legal and ethical standards. They must understand the basic principles of HTA legislation and the HTA Codes of Practice. Those involved with the collection of HTA relevant materials from subjects must have training in the seeking of consent and an understanding of the implications and essential requirements of consent. Documentary evidence of training is a requirement of the HTA and should be kept on the individual's personnel file and be available for inspection.

[4] DI- Simon Hoer contact email addresses: hta@admin.cam.ac.uk; sh380@cam.ac.uk

Cambridge University Health & Safety Policy

The University has a Health & Safety Policy[5] that is signed by the Vice Chancellor of Cambridge University. It describes how the University meets the requirements of the Health & Safety at Work etc Act 1974. There is a comprehensive intranet on all aspects of health and safety legislation[6]. It includes a section on the HTA where all key documents, guidance and frequently asked questions are provided, all accessible by University staff via a secure password-protected University intranet site[7].

Regulatory Approvals

The University follows the University of Cambridge Policy on the Ethics of Research Involving Human Participants and Personal Data[8] . There is further information on research provided by the Research Operations Office (ROO)[9].

Before a researcher seeks to obtain any type of human samples, that researcher or usually their PI, must ensure that the research project to be undertaken has, where required, appropriate ethical approval from a Research Ethics Committee (REC) for obtaining (use) of human materials and other regulatory approvals[10]. Full details on gaining ethical and other regulatory approvals are on the HRA website[11]. Most research involving NHS patients, staff or facilities will come under the Research Governance Framework for Health and Social Care and will require NRES review. A range of other types of clinical and social science research also requires NRES review, for further details see the University NRES review guidance page[12]. Research that requires review by an external body, such as a National Research Ethics Service (NRES) Committee, should be identified and referred to that body as early as possible in the review process.

Some relevant material samples obtained by researchers are held and used under specified projects which have been ethically reviewed by a body such as the National Research Ethics Service (NRES) Committee and do not require further licensing by the Human Tissue Authority. There is University guidance on NRES review, (see footnote 12). Samples obtained under project-specific REC approval will not need to be stored on the University HTA licence, see footnote [1] (HTA Code E).

Please note, research that is ethically approved by the ***University*** Research Ethics Committees[13], but not NHS REC **is not exempt from HTA licensing**. In order to store HTA-relevant samples[14], a HTA Licence would be required. University departments that are physically located on the Addenbrooke's biomedical campus will require licensing on the Addenbrooke's HTA research licence (#12315), not the University Research Licence (#12196), as the HTA provides licences based on geographical location, not on institute affiliation.

Once NRES approvals expire and unless any MTA states differently, it may be desirable to continue to store these samples following their use in ethically approved projects for re-use in future projects. In order to meet legal obligations for the storage and use of human tissue in these circumstances, a number of Departments have joined the HTA Licence (12196) held by The University of Cambridge.

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[5] University Health & Safety Policy https://www.safety.admin.cam.ac.uk/files/hsd016m.pdf

[6] University health & safety website https://www.safety.admin.cam.ac.uk/

[7] University HTA website https://www.safety.admin.cam.ac.uk/subjects/biologicals/human-tissue-act

[8] https://www.research-integrity.admin.cam.ac.uk/files/policy_on_the_ethics_of_research_involving_human_participants_and_personal_data_oct_2016.pdf See also https://www.research-integrity.admin.cam.ac.uk/research-integrity

[9] https://www.research-operations.admin.cam.ac.uk/

[10] Under the Regulations made under the Human Tissue Act, ethical approval can be given by a "research ethics authority", i.e. any ethics committee recognised by the United Kingdom Ethics Committee Authority (UKECA) under the Clinical Trials Regulations or any REC recognised by the health departments in England, Wales or Northern Ireland to advise on the ethics of research involving human tissue.

[11] https://www.hra.nhs.uk/approvals-amendments/what-approvals-do-i-need/

[12] https://www.research-integrity.admin.cam.ac.uk/research-ethics/guidance/nres-review

[13] https://www.research-integrity.admin.cam.ac.uk/research-ethics/research-ethics-committees

[14] https://www.hta.gov.uk/guidance-professionals/hta-legislation/relevant-material-under-human-tissue-act-2004/list-materials

Research Tissue Banks

There is specific advice on the formation and operation of a tissue bank and currently the University of Cambridge licence has one tissue bank in the Department of Physiology, Development and Neuroscience that has generic ethical approval for projects receiving tissue. In the HTA Code E, the following information is provided: *The HTA and the HRA's Research Ethics Service (HRA RES) have agreed a position whereby its RECs can give generic ethical approval for a research tissue bank's arrangements for collection, storage and release of tissue,* ***providing the tissue in the bank is stored on HTA-licensed premises*** [this is the case for the University Licence 12196]. *Such research tissue banks need to be licensed because at least some of the tissue being stored is not for specific projects holding REC approval. Subject to conditions, the bank's* [generic] *ethical approval extends to* ***specific*** *projects receiving* ***non-identifiable tissue*** *from the bank. The tissue does not then need to be stored on HTA-licensed premises for the duration of the project; nor does it need project specific ethical approval. If the research is* ***not carried*** *out in accordance with these requirements,* ***specific project approval by a recognised REC will be required or, alternatively, the samples will need to be stored under a HTA licence****. Information about the requirements governing the release of tissue can be found on the HRA website. On completion of research using tissue from a REC-approved research tissue bank, the individual researcher must transfer the tissue back to the bank or to an alternative HTA-licensed establishment, apply for their own HTA licence (unless there are existing local licensing arrangements which can be used to cover the further storage), apply for specific project approval by a REC or dispose of the human tissue according to the SOP.*

HTA Standards

The HTA standards have been revised since the Act came into force and the most recent update was published in 2017. Code A was revised in 2020 following a new law on deemed consent. The University has held a Research Licence since 2006 and devised a set of over-arching recommended Standard Operation Procedures (SOPs) at the time. Revised versions, taking into consideration the updated guidance from the HTA, are in **Appendix 4**.

It is expected that individual premises on Licence 12196 will have their own specific local documents as well as adopting this QM.

HTA Standard 1 - Consent

Consent is the fundamental principle of the HTA 2004. The HTA has strict definitions of human tissue and governs the use of such tissue by means of consent from the donor or their relatives, or by approval of specific projects from a research ethics committee.

Samples can be used without consent in certain circumstances, eg if the donor is unidentifiable to the researcher, or the samples are sourced from abroad, but procedures must be in place to ensure that the conditions and requirements of the HT Act are met. Other exemptions from consent are outlined in the Frequently Asked Questions (FAQs) section of the University Safety Office intranet on HTA[15].

Consent, in accordance with the HT Act, must have been obtained from a donor or their authorised representative before a researcher obtains, uses, or stores any human materials for the purposes of research. The primary source of guidance is in the HTA *Code of Practice A* on consent, new version published in May 2020[16]. Further guidance from the MRC Regulatory Support Centre is provided on the University intranet and on the MRC website[17]. An example pro-forma template for consent is provided at

[15] https://www.safety.admin.cam.ac.uk/subjects/biologicals/human-tissue-act/frequently-asked-questions
[16] https://content.hta.gov.uk/sites/default/files/2020-11/Code%20A.pdf
[17] https://mrc.ukri.org/documents/pdf/consent-summary/ and https://mrc.ukri.org/documents/pdf/guidance-for-staff-asked-to-volunteer-samples/

Appendix 4.

PDs are required to ensure the creation of local standard operating procedures, risk assessments and consent forms appropriate to the research being carried out in their Departments.

It is understood that researchers wishing to use relevant materials for research may not be those in a position themselves to obtain consent for their use; such researchers however, must satisfy themselves that appropriate consent has been obtained.

The key principles to be followed are:

- Donors should understand the use to which the human material will be put and how the results of the research might impact on their interests.
- Consent must also be obtained for storage and potential future use of materials.
- When material left over following diagnosis or treatment (described as surplus to clinical requirements) might be used for research, the donor's (patient's) consent is likely to be required.

Whilst it is essential to obtain the appropriate consent for obtaining relevant material under the HT Act, it is also necessary to obtain donor informed consent as required by ethical requirements.

The provision of information to patients is an integral part to the obtaining of informed consent. All information presented in the form of patient information sheets must have been reviewed by a REC or another ethics review body as appropriate. Patient information and consent processes must be taken by an appropriately-trained individual. Records of such training must be available and up-to-date. The consent process must be continually reviewed through regular staff and user feedback (see **Appendix 4**, Recommended SOPs 1 – 3).

PDs are required to ensure that training in the taking of consent is undertaken where relevant, and at appropriate refresher intervals and that records of consent training are kept centrally.

HTA Standard 2 - Governance & Quality Systems

This over-arching QM establishes a harmonised approach to all aspects of human sample management to ensure compliance with the HT Act licensing standards. The DI and PDs have ultimate responsibility for the implementation of the QM. The DI is a senior manager with experience in regulatory compliance. The LHC has direct access to the University Registrary and relevant executive committees (see **Appendix 2**).

The DI chairs the University HTA (Research) Committee, which brings together the Corporate Licence Holder Contact, the PDs and other key individuals. The Committee meets bi-annually; the remit of the Committee is reviewed and agreed annually (see **Appendix 3**). The minutes are distributed to PDs and cascaded intra-departmentally via formal committees and are also placed on the University HTA intranet[18].

GQ1- The University HTA governance and quality management systems is covered in this QM Policy document. Additional HTA relevant information is placed on the University intranet. The HTA intranet content is reviewed and updated at least bi-annually and is part of the process of document control. This QM is discussed by the DI and the HTA (Research) Committee prior to its consideration by the sub-committee for biological safety. Once ratified by CCfS and HSEC, it is published on the intranet (see **Appendix 2**). Documentation that is created within a licenced Department/Institute will be supported and ratified locally, in accordance with the HTA *Research Standards and Guidance Code E*- see footnote [1].

GQ2- All HTA licenced premises are subject to planned and scheduled internal audit processes. These are

[18] https://www.safety.admin.cam.ac.uk/subjects/biologicals/human-tissue-act/minutes

conducted against the four current HTA standards and are undertaken annually. There is a log of previous and planned audits and inspections. Laboratory inspection always includes a traceability check of randomly selected samples. Issues highlighted during audits are documented in action plans and are followed up at Department level or at HTA (Research) Committee level, progress and completion is documented in meeting minutes. The question set that is used for internal auditing is based entirely on the HTA Code E Research Licence Standards and Guidance document- see footnote [2]. It is expected that Departments will undertake their own internal reviews and audits and that these are formally documented and reports shared with the DI.

GQ3- The University requires all staff working with human tissue to undertake relevant training courses. Some groups in some Departments store relevant material in areas accessible to researchers who do not normally work with human material. Where this is the case, PDs must ensure that all staff and students must have HTA awareness training as part of their induction. This will ensure awareness of the requirements under the HT Act and the need to limit access to the relevant material. HTA face-to-face training courses are held twice a year (advertised via the University Safety Office). If researchers are unable to attend a training course, the Human Tissue Authority recommends three e-learning modules: an HTA test your knowledge quiz[19]; an MRC on-line learning[20] and an HRA course[21]. All personnel involved in working with human tissue must undergo at least one of these training courses. It is required that training records are kept and made available to the Departmental PD for auditing purposes. The University has a policy of continued personal development as part of every member of staff's annual appraisal, therefore, the competency of training of all staff and students is embedded into their job roles and responsibilities.

GQ4- Records relating to samples from persons who have consented to the scheduled purpose of research under the HTA are managed at a local level by the PDs and PIs. Each licenced premises has systems in place for the creation, review, amendment, retention and destruction of records relating to the HTA. Over-arching SOPs are provided in this QM relating to record management (see **Appendix 4**). In addition, the University has a records management policy[22]. The University is fully compliant with the General Data Protection Regulation GDPR[23] [the new data protection law that applies in the UK and the rest of the EU from 25 May 2018 and replaces the Data Protection Act 1998 (DPA 1998)]. Access to the University HTA intranet site is secure and password protected and not publicly available. The University has electronic systems in place for back-up in the event it is necessary to recover any lost records.

GQ5- The University Safety Office has an Accident, Incident and Dangerous Occurrence reporting system and an online form for completion using AssessNET, that is available on the intranet[24]. Staff are instructed to use this form to report any suspected or actual adverse events such as: specimen loss; missing or incorrect documentation; security breach; abnormalities in storage temperature records; inappropriate disposal. In addition, any reports are discussed by the HTA (Research) Committee and at Departmental level and followed up to prevent recurrence (see SOP 9).

GQ6- It is a condition of the Licence to risk assess all HTA-relevant practices and processes. The areas that HTA risk assessments (RAs) must cover are described further in **Appendix 4**.

[19] https://www.hta.gov.uk/guidance-professionals/codes-practice/test-your-knowledge-hta-legislation
[20] https://byglearning.com/mrcrsc-lms/course/index.php?categoryid=15
[21] https://www.hra.nhs.uk/planning-and-improving-research/learning/e-learning/
[22] https://www.information-compliance.admin.cam.ac.uk/records-management
[23] https://www.information-compliance.admin.cam.ac.uk/data-protection/general-data-protection-regulation
[24] https://www.safety.admin.cam.ac.uk/subjects/accidents-incidents

PDs/PIs are responsible for managing risk locally and producing HTA-specific RAs relevant to their areas and to ensure that all staff are inducted and trained appropriately.

Risk Assessments should be reviewed every 1-3 years and always after an actual or suspected adverse event.

HTA Standard 3 – Traceability

Coding and traceability of HTA-relevant material can be undertaken in several ways, however, records of the number of samples being stored at any one point in time are key for HTA compliance. The researchers must be able to trace all samples and their derivatives, back to its source. Traceability must include details of when tissue was acquired and when it was received by the Department. To assist with this, the University has developed a Tissue Tracker, which is a secure web-based application and data store[25] to support the process of recording and tracking human tissue samples. It provides a unique identification number to each sample and tracks the derivative samples, too. There is an over-arching SOP 4 on traceability at **Appendix 4**. The Tissue Tracker has the functionality to document disposal (**date**, **reason**, **method and by whom**) as should any other tool being used for sample tracking. When tissues are moved from long-term storage conditions for experimentation, records should be updated at the time of removal to show the current location. This is particularly important if the tissue is destined for ultimate disposal. This is to avoid the loss of traceability and thus fall short of this HTA standard. PDs are responsible for ensuring that disposal is carried out in accordance with the HTA's Code of Practice and an over-arching SOP 7 is provided to assist with this.

Each licenced Department is expected to have local procedures and documentation in place to ensure safe transportation of relevant material, the over-arching SOP 5 covers the relevant aspects: procedures to ensure traceability; risk assessments of transportation; records of transportation and delivery, Material Transfer Agreements and Service Level Agreements with courier companies.

Each licenced Department is expected to institute processes to ensure that (i) relevant and non-relevant human materials as well as (ii) human and animal materials are stored separately in order to mitigate any potential loss of samples or their traceability.

HTA Standard 4 - Premises, Facilities and Equipment Standards

All HTA licenced premises must be secure and fit for the purpose of storing and use of human tissue. PDs must raise any concerns relating to this with the DI who is ultimately responsible. ***All premises must be secure, confidentiality maintained, clean, the equipment and facilities well maintained (and records kept for calibration, validation, monitoring, maintenance) and also have documented cleaning and decontamination procedures and schedules relevant to human tissue samples*** (see SOP 6 for an over-arching SOP). There must also be sufficient provision for sample storage within each licenced premises and regular reviews of monitoring systems for tissue storage (see SOP 8, point 5).

All staff and students must be made aware of the risks associated with working with HTA relevant material to prevent loss of samples. PDs must ensure that storage conditions are adequately maintained and monitored, not just alarmed, that monitoring records are assessed and kept and issues are acted upon as they arise to ensure no loss of human tissue. A formal documented system to evidence that these actions are being carried out must be in place. There must also be documented contingency plans in place in case of failure in storage. Instructions for contingency arrangements should be placed on relevant equipment in

[25] https://www.uis.cam.ac.uk/tissue-tracker . To note: The UIS is currently reviewing this provision, any changes will be advised.

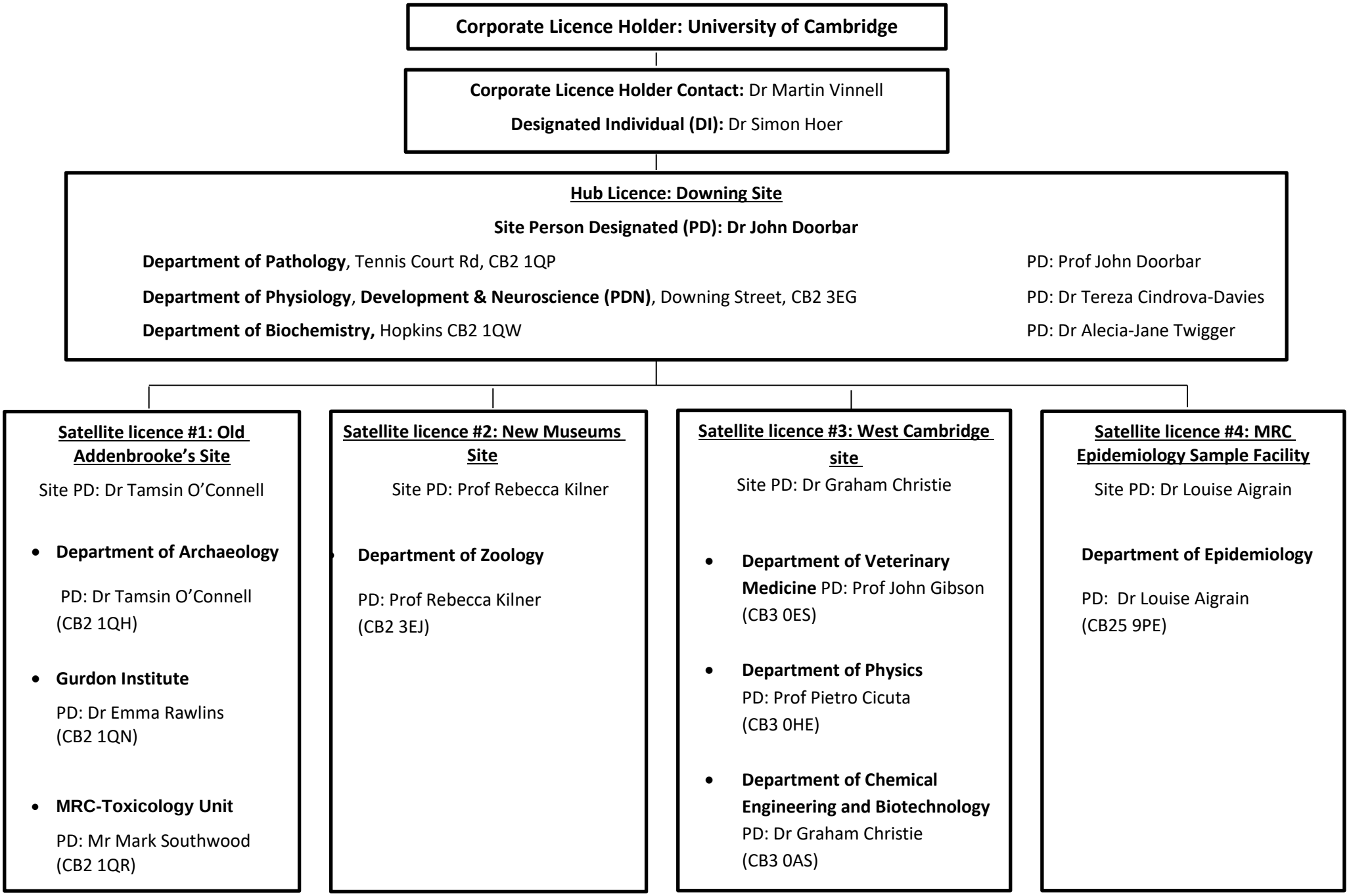
case of break down.

Staff are provided with all appropriate PPE relevant to their research. ***High level risk assessments relevant to HTA practices and processes must be documented and referred to at induction/training***, see **Appendix 4** for guidance.

In addition to COSHH and general RAs, HTA-specific contingency plans for critical equipment breakdown, maintenance and replacement must be documented. For example, if a Department decides not to have freezer maintenance contracts, this must be formally risk assessed and documented.

The most recent HTA inspection of this licence took place 6-7 November 2018, the report is available on-line on the HTA website[26]. This QM was updated to reflect the HTA instructions and advice after the inspection. The QM is reviewed and updated at least annually.

[26] https://content.hta.gov.uk/sites/default/files/2021-09/2018-11-6%207%2012196%20University%20of%20Cambridge%20Inspection%20report-%20final.pdf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MRC-Toxicology Unit
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Department of Physics
PD: Prof Pietro Cicuta
(CB3 0HE)
Department of Chemical Engineering and Biotechnology
PD: Dr Graham Christie
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Satellite licence #4: MRC Epidemiology Sample Facility
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Department of Epidemiology
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(CB25 9PE)

Licence 12196 HTA Contacts – April 2025

Role	Name	Position	Email contact
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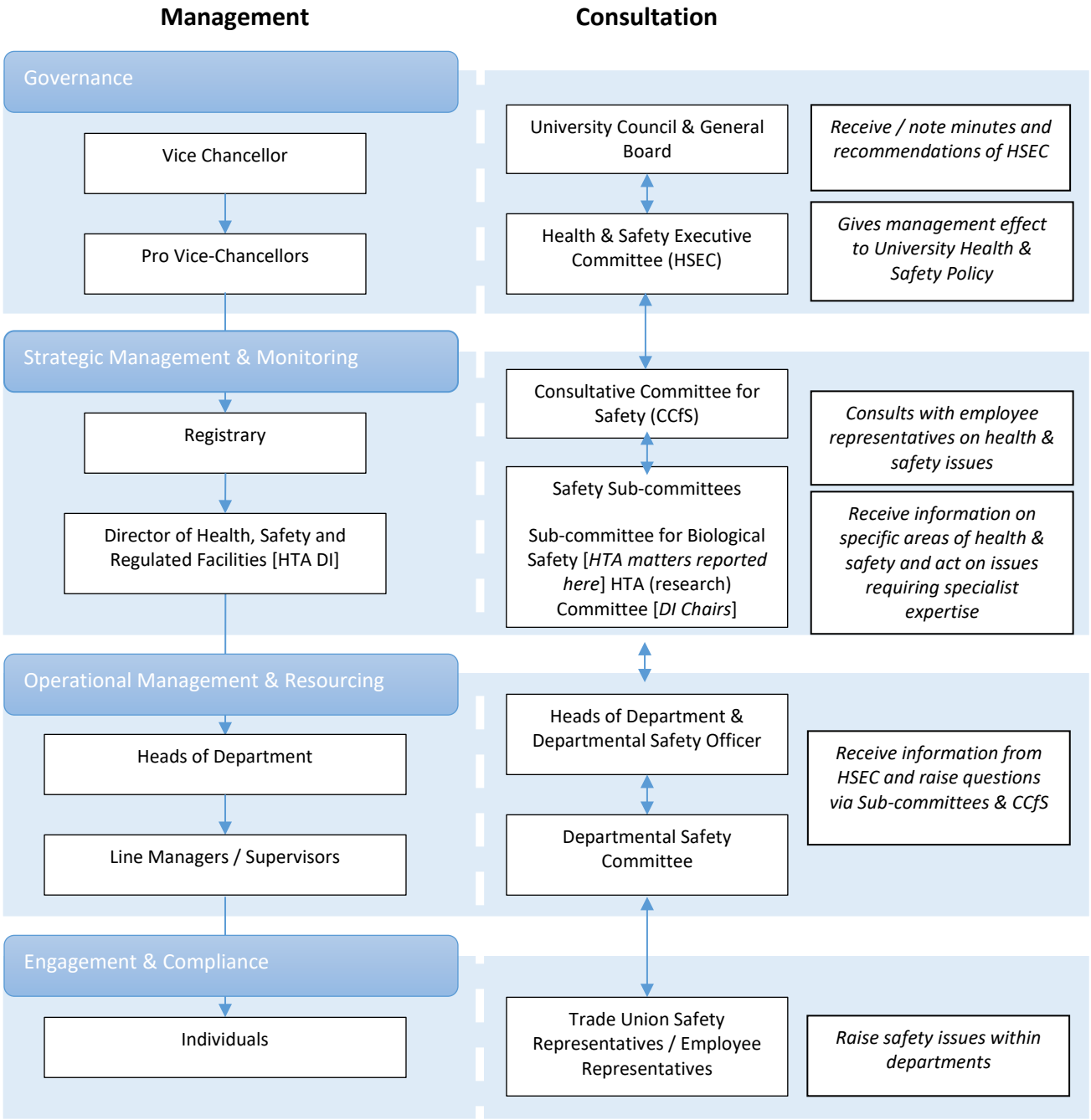
Appendix 2

Health & Safety Compliance: Governance Structure & Organisation

https://www.safety.admin.cam.ac.uk/files/hsd016m.pdf



Remit of the University of Cambridge HTA (Research) Committee

Terms of Reference

It shall be the role of the HTA (Research) Committee in conjunction with relevant staff of other University Divisions :

1) To maintain knowledge of all legislation dealing with 'human tissue in research', in order to comply with the Human Tissue Act (2004).

2) To draft University policy and monitor its implementation in the HTA (research) licensed departments of the University. Where appropriate, responses to consultative documents on pending legislation and guidance will be made.

3) To promote a culture that respects the moral, ethical and legal responsibilities amongst staff, students and embedded companies towards their storage and research with human tissue.

4) To have direct access to the University Health and Safety Executive Committee (HSEC) via the Director of HSRFD (also the License Holder Contact) and report any resourcing needs relating to the HTA in the University that have been identified to that Committee.

5) To review annually (and revise as required) at the first meeting of the academic year the membership and remit of the HTA (Research) Committee, the HTA Quality Manual and to meet bi-annually, providing a short summary report of relevant proceedings for the Consultative Committee for Safety (CCFS). The full minutes being posted on the Safety Office (SO) website.

6) To provide a forum for discussion and the dissemination of material pertinent to the HTA between professional safety staff, academic staff and support staff.

7) To review recording and audit of holdings and, if necessary, locally produced risk assessments.

8) To liaise with all appropriate committees, sub-committees and working groups concerning matters of mutual interest or concern eg Cambridge Human Biology Research Ethics Committee.

Recommended Standard Operating Procedures and Guidance on Risk Assessments for HTA Practices and Processes

For the storage of relevant human material for the scheduled purpose of research

Standard Operating Procedures relevant to the Licensing of the Storage of Human Material for the Scheduled Purpose of Research in response to the Human Tissue Act 2004

These over-arching SOPs relate to the four standards in Code of Practice E Research of the Human Tissue Act 2004. The licenced scheduled purpose relates to research.

The recommended SOPs cover:

SOP 1 - Consent from Living Adults
SOP 2 – Consent for Tissue from the Dead
SOP 3 – Training in the Process of Informed Consent
SOP 4 – Labelling, Recording and Tracking of Relevant Human Material
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SOP 6 – Cleaning and Decontamination
SOP 7 – Disposal of Relevant Human Material
SOP 8 – Storage of Relevant Human Material
SOP 9 - Adverse Event and Incident Reporting for Relevant Human Material

No sample shall be stored at the HTA licenced sites without compliance to the HT Act; compliance to the conditions of the Licence issued by the Human Tissue Authority and as instigated by the SOPs developed on behalf of the Designated Individual and governed by the HTA (Research) Committee for the Scheduled Purpose of Research relating to the Human Tissue Act.

All researchers must adhere to the SOPs to ensure compliance with the HT Act. SOPs will be updated as required and versions tracked to comply with legislative changes and best practice guidance from relevant bodies such as the HTA.

Departments/Institutes are expected to create their own local, more specific SOPs where appropriate.

Guidance on SOPs is provided by the HT Authority in its Standards and Guidance document[27] under the Governance and Quality System Standards (GQ1).

[27] https://content.hta.gov.uk/sites/default/files/2020-11/Code%20E%20standards.pdf

Risk Assessments (RAs) for all practices and processes relevant to the Licensing of the Storage of Human Material for the Scheduled Purpose of Research in response to the Human Tissue Act 2004

Departments/Institutes are expected to create their own documented risk assessments (RAs) for all practices and processes requiring compliance with the HT Act and the current HTA Code of Practice (E) for Research.

RAs must be reviewed regularly and be referred to during HTA training and induction. After training/induction, a central training record must be updated/created to reflect that these documents have been read and understood.

Licensed departments must identify the risks inherent in key activities, evaluated as to the level of risk and create SOPs to consider and mitigate the potential risks as necessary. **The HTA-specific RAs are not supposed to focus on health and safety issues, but must cover risks relating to practices, procedures and the premises connected with licensed activities** including:

- Receiving and/or storing specimens without appropriate consent documentation
- Storing or using human tissue after consent withdrawal
- Storage failure or other damage affecting human tissue quality for useful research
- Storage of human tissue in equipment that is not on a regular maintenance service contract.
- Loss of human tissue
- Sample mix-up or loss of traceability
- Transport of specimens to and from the Department
- Reception collection/receipt arrangements
- Security arrangements
- Incorrect disposal

Further guidance on the areas that require risk assessment is provided by the HT Authority in its Standards and Guidance document under the Governance and Quality System Standards (GQ6) - **see footnote 28**. This will include providing documented Risk Assessments relating to decisions by Departments to not have freezer maintenance contracts. This was specifically identified as a GQ6 (a) shortfall in the HTA inspection in 2018.

SOP 1 - Consent from Living Adults - HTA STANDARD ON CONSENT

Please refer to HTA Code A:
https://content.hta.gov.uk/sites/default/files/2020-11/Code%20A.pdf

1. No sample of relevant human material shall be stored in HTA licensed sites without fully informed consent being obtained unless:
    - The research project has been approved by the UK National Research Ethics Service (NRES). The donors of material must have been informed that the samples will be stored at the end of the research project for use in future research projects upon receipt of ethical approval.
    - The sample has been imported with documented assurances that the taking of samples has met with regulatory approval from the exporting country.
    - The tissue is anonymised.
    - The sample has been purchased via a commercial transaction eg purchase of buffy packs from the NHS Blood Donor Service.
    - The sample was originally taken for diagnostic purposes and the remaining amount would otherwise be considered as clinical waste.
    - The samples were obtained prior to the Act coming into force on 1 September 2006.

2. Consent must be given voluntarily by an appropriately informed person who has the capacity to agree to the activity in question and/or for the storage and use of tissue for other purpose.

3. The absence of refusal does not imply consent.

4. Informed consent may only be taken by a person who has been trained in the process of taking consent.

5. Consent from adults who lack capacity or from children (any person under the age of 16) requires special consideration and material shall not be stored unless this material has been first obtained under an ethically-approved research project or was obtained prior to 1 September 2006 or evidence can be given that consent was obtained in accordance with legislative requirements.

6. Example template information and Consent Forms are provided which comply with the HTA Code of Practice on Consent. These shall be adapted to fit the nature of your research and receive approval from a relevant Committee prior to commencement and as required under Point 1 of this SOP.

7. Fully informed consent shall be recorded using Consent Forms.

8. Hard copies of the information sheet, and signed Consent Forms shall be kept at all times whilst the material is being stored. If the informed Consent Forms are being kept off site, the information shall be provided as to the location and contact details of the person maintaining the consent.

9. Where possible, electronic copies of the signed Consent Forms, should also be archived.

10. All documents shall be retained in a secure manner to protect Data Confidentiality and back-up systems in place.

11. These shall be made accessible upon request to the Head of Department, Safety Officers (School or Departmental), PIs, lab manager(s), any person acting on behalf of or for the Human Tissue Authority (such as the Designated Individual, Persons Designate or HTA Inspectors).

12. Where possible, generic and enduring consent should be taken so that precious human tissue is not disposed of unnecessarily.

SOP 2 – Consent for Tissue from the Dead - HTA STANDARD ON CONSENT

Please refer to HTA Code A:
https://content.hta.gov.uk/sites/default/files/2020-11/Code A.pdf

1. No sample shall be stored on the HTA licensed premises without fully informed consent being obtained unless:
    - The samples were obtained prior to the Act coming into force on 1 September 2006. These will be defined as existing holdings.
    - The sample has been imported with documented assurances that the taking of samples has met with regulatory approval from the exporting country.

2. Consent must be given voluntarily by an appropriately informed person who has the capacity to agree to the activity in question and/or for the storage and use of tissue for other purpose.
3. Informed consent may only be taken by a person who has been trained in the process of taking consent.
4. The absence of refusal does not imply consent.
5. Where an adult has, whilst alive and competent, given consent to one or more schedule purposes to take place after their death, then that consent is sufficient for the activity to be lawful.
6. If a deceased adult has neither consented nor refused a donation or the removal, store or use of their body or tissue, those close to them should be asked to nominate a representative to take those decisions, except in the case of public display. The appointment of a nominated representative shall be recorded on the Template Form (examples of template information sheet and consent form are provided in **Appendix 4**).
7. Where a nominated representative is not appointed, those in a qualifying relationship to the deceased, may provide consent if they wish to deal with consent and/or can be located in a reasonably practicable timeframe. These are (highest first):
    - spouse or partner (including civil or same sex partner)
    - parent or child (in this context a 'child' can be any age)
    - brother or sister
    - grandparent or grandchild
    - niece or nephew
    - stepfather or stepmother
    - half-brother or half-sister
    - friend of long standing.

8. Consent from adults who lack capacity or from children (any person under the age of 16) requires special consideration and material shall not be stored under the HTA licence unless this material has been first obtained under an ethically-approved research project or was obtained prior to 1 September 2006 or evidence can be given that consent was obtained in accordance with legislative requirements.
9. Template information and consent forms are developed which comply with the HTA Code of Practice Standards on Consent and these shall be adapted to fit the nature of your research and receive approval from a relevant Committee prior to commencement.
10. Fully informed consent shall be recorded on Consent Forms.
11. Hard copies of the information sheet, and signed consent forms shall be kept at all times whilst the material is being stored. If the informed Consent Forms are being kept off site, the information shall be provided as to the location and contact details of the person maintaining the consent.
12. Where possible, electronic copies of the signed Consent Forms should also be archived.
13. These shall be made accessible upon request to the Head of Department, Safety Officers (School or Departmental), PIs, lab manager(s), or any person acting on behalf of or for the Human Tissue Authority (such as the Designated Individual, Persons Designate or HTA Inspectors).
14. Should a relative request the return of any material that is part of the existing holdings, then this request shall be met and a levy may be charged to meet all or some of the cost associated in arranging for the return of the tissue.

SOP 3 – Training in the Process of Informed Consent - HTA STANDARD ON CONSENT

Please also refer to:

https://www.hra.nhs.uk/planning-and-improving-research/best-practice/informing-participants-and-seeking-consent/

1. Any staff member who takes informed consent shall be trained in the process.
2. The training will be recorded and a copy of the training will be kept with the staff member's personnel file and the staff member will be required to keep a copy of the training records.
3. It is preferable that training be received from the NHS and/or a certified course taking in Good Clinical Practice (GCP).
4. It is also acceptable that one-to-one training is provided by an experienced member of staff trained in the process of obtaining consent, for example, taking a blood sample from a colleague and that this training is documented and records kept.
5. Training records will need to be made accessible upon request to the Head of Department, Safety Officers (School or Departmental), PIs, lab manager(s), or any person acting on behalf of or for the Human Tissue Authority (such as the Designated Individual, Persons Designate or HTA Inspectors).
6. The Health Research Authority (HRA) provide an on-line training tool[28] and guidance on seeking consent[29].
7. Any complaints, irrespective of the manner in which the complaint is made, about the manner in which consent was sought shall be directed to the DI within 24 hours of the complaint being made.

[28] https://www.hra.nhs.uk/planning-and-improving-research/best-practice/informing-participants-and-seeking-consent/
[29] http://www.hra-decisiontools.org.uk/consent/

1. The HTA standard on traceability of human tissue applies at all times: during use, temporary experimentation and disposal of the tissue. For example, if an item is being moved from its long-term storage location temporarily to a microscope or being sent away for destructive testing, the log/tracker/spreadsheet must be updated at the time to indicate where the tissue is at any point in time or whether it has been disposed (this must include date, reason and method). Meticulous logging ensures that traceability is maintained at all times. This has been highlighted to the University by the HTA at the 2018 inspection.
2. Samples that are to be stored must have evidence of informed consent as outlined in SOP 1 and 2.
3. Samples that are to be stored must be clearly labelled, be given a unique identification and recorded in the University Tissue Tracker database designed for this purpose, an excel spreadsheet or similar or in a logbook. If using a log book, the record shall be written in black pen (**see section below on recording***).
4. At 5 year intervals, or earlier if appropriate, a responsible and informed person shall review the storage of the material and dispose of it if necessary (eg the time period for which storage was agreed and consented has expired). A record of the review of the inventory should be made and kept.
5. Corrections to the logbook shall be recorded by a single line through the current writing, initialled, dated and the amended information written clearly in print. Corrections to electronic records should be recorded and samples disposed of should still be available as an archived record.
6. The Head of Department, Safety Officers (School or Departmental), PIs, lab manager(s), or any person acting on behalf of or for the Human Tissue Authority (such as the Designated Individual, Persons Designate or HTA Inspectors) shall be provided with access to the records upon request.
7. Annual review of stored material is requested by the DI. Self-audit questionnaires are to be completed with up-to-date information of the samples and records kept. Evidence of correctness of the log may be requested upon review.
8. In some cases, the period of storage should be specified when obtaining fully informed consent and the material disposed of in accordance with the HT Act at the expiry of that date.
9. Where possible, generic and enduring consent should be taken so that precious human tissue is not disposed of unnecessarily.
10. Material to be stored shall comply with Health and Safety and Environmental Regulations.
11. Risk assessments shall be undertaken to encompass the safe storage, minimising the loss, handling and use of the material (see HTA guidance under GQ6 and guidance under **Appendix 4** in this Quality Manual).
12. Material shall be stored at appropriate containment levels in a secure area.
13. Contingency plans and back-up systems shall be specified for equipment or environmental failure to prevent loss of samples.

*** Recording of Material** ***[see also SOP 5]***

Sample tracking can be undertaken in several ways, but records of how many samples are kept, and where, are key to compliance with the HT Act. The researcher must be able to demonstrate the systems in place and be able to trace all samples and their derivatives back to its original consent. Details of when the tissue is acquired (if this is known) and received at the University must also be logged.

The HTA will inspect sites holding licences and it is a requirement that licensed premises track the intake, storage and disposal of material. It is a matter of compliance that a record is made and kept of the date, reason and method of disposal of the tissue. Therefore, the following aspects must be recorded:

a. **Details of the PI and location of research group.**
b. **Tissue details: what type and in what form is the material? (eg slides, eppendorf tubes).**
c. **What date the tissue was received and is there a date by which it should be discarded?**
d. **Where and how is the tissue being stored? Who has access to the tissue?**

e. **How was the tissue obtained?**
f. **Is it identifiable, unidentifiable or anonymised?**
g. **Has the storage been consented to?**
h. **Do you have a copy of the consent form or can you track down the consent form? Where is the consent form/information located?**
i. **Was the material obtained from the living or deceased?**
j. **Was ethical approval obtained? If so, record the project title, ethics reference number, date of approval and issuing body. The date of REC approval expiry must be recorded- if it is not known, enquiries must be made to establish this information and the information made available to the DI.**
k. **When, why and how and by whom was the tissue disposed of?**
l. **You must complete HTA-specific risk assessments for the storage, facilities, premises and security of the material and Consent Forms**
m. **What back-up systems are in place should the facilities fail? For example, specify the freezer that will be used as a back-up if there is power failure and place this information as a notice/label on the current and contingency storage facility.**

SOP 5 – Incoming and Out-going Transport Arrangements for Human Material

Each licensed Department* must *have local procedures and documentation in place to ensure the safe transportation of HTA relevant material.

The documentation should cover the following:

1. **Risk Assessments of receipt and transportation**
   - Prior to transportation of samples, a risk assessment should be undertaken to identify the potential risks, such as the areas set out below. The risk assessment should also take into consideration risks such as receiving samples without appropriate consent documentation, samples arriving in a poor/unusable condition, or at a time when there is no one available to place the sample into the appropriate storage conditions, or the sample is misplaced.

   - *Sample traceability needs to be maintained at all times, and therefore is a key risk that requires measures to be in place to ensure full traceability from receipt to storage to disposal.*

2. **Transfer of samples – Packaging**
   The total packaging must include:
   - A watertight, leak-proof primary receptacle.
   - Watertight, leak-proof secondary packaging.
   - Primary and secondary packaging must be able to maintain their integrity at the temperature of transport.
   - Outer packaging of sufficient strength for its capacity, mass and intended use.
   - For transport at ambient temperature the primary receptacle should be plastic, metal or glass. If screw caps are used they should be reinforced with adhesive tape or Parafilm to ensure a leak-proof seal.
   - For transport in dry ice, the dry ice should be placed around the secondary packaging and the outer packaging must allow the release of carbon dioxide gas to avoid build-up of gas and potential rupturing of packaging or explosion.

3. **Transfer of samples - Labelling and paperwork**
   - Paperwork, including a contents list, should be placed in waterproof packaging and placed between the secondary packaging and the outer packaging. Labels on the primary and secondary packaging should be waterproof and, where handwritten, should be in permanent ink. Labels on the outer packaging must be durable, legible and clearly visible. They should contain the delivery address and the sender's details. If transporting in dry ice, the words 'DRY ICE' should be clearly visible on the outside of the package.

   - A copy of the signed and countersigned MTA must accompany all human material released from the HTA licensed collection/bank. A copy of the donor consent form should remain with the PD as appropriate. However, a copy of the consent form may be sent to the third party upon request – only if this does not contravene donor confidentiality or the terms of the ethics approval.

4. **Transfer of samples – Transport**
   - Transport of samples by air requires additional documentation and, if transporting in dry ice, additional regulations must be adhered to.
   - Samples which require storage at different temperatures should be packaged separately.
   - All persons undertaking any role in the transport chain should be properly trained to carry out their responsibilities to the required standards. They must appreciate the risks involved and have a detailed understanding of the relevant regulations. The level of training required varies but should

be commensurate with the role and the associated responsibilities and must be recurrent to take account of changes in the regulation.

- There should be no unnecessary, unscheduled stops during transportation and samples must not be left in a car unattended.
- If transporting in dry ice in a standard car, as opposed to a commercial carrier such as DHL, then goods should not be transported in the same driving space that the driver/passengers occupy. Windows of the driver's area should always be open/ajar and when opening the boot compartment to retrieve a dry ice container the area should be allowed to ventilate to ensure any build-up of CO_2 gas dissipates before leaning into the area.

5. Procedures to ensure traceability of relevant material during transportation *[see also SOP 4]*

- An audit trail must be maintained when tissue is collected. When samples enter the collection, the PD/researcher should record all aspects of their storage, use and fate. The sample should be anonymised by assigning a unique number/identifier that is linked to the original information kept securely in the licensed premises. All subdivisions of the sample should be identified with reference to the master sample.
- Samples must be labelled appropriately for the storage conditions. Printed adhesive labels should be used wherever possible. The use of handwritten labels should be avoided wherever possible due to legibility issues and possible loss though exposure to solvents etc.
- Information recorded for each sample should include:
    - Sample type
    - Unique sample identifier
    - Date of collection
    - Custodian of the sample
    - Consent type (project specific, generic, none)
    - Collection centre/providing establishment or organisation
    - Physical location within the bank/collection
    - Details of any ethics approval for use
    - No data that would allow the donor of the sample to be identified should be printed on the sample container.

6. Records of transportation and delivery

- Proper records and documentation for all tissue and organs must be kept from collection to transfer or disposal. This should include:
    - When the material was acquired and from where
    - The current location of the tissues held under the Licence
    - If tissue is transferred elsewhere, when and to whom
    - Details indicating whether the material is exhausted (either due to analysis or disposal)
    - Any details of disposal. This may include details of when, why, where and how disposal is undertaken, and the person(s) undertaking and authorising disposal.

7. Material transfer agreements (MTAs)

- A MTA (in-coming or out-going) should define explicitly, the terms and conditions associated with the material(s) exchanged. All human tissues and cells classified as relevant material can only be transferred to another institution(s) and third parties under the terms of a MTA.
- MTAs should cover assurances that tissue being transferred has all the appropriate ethical consents in place.
- HTA MTAs are available from the Research Operations Office (ROO). PDs/researchers transferring material must contact ROO who will facilitate the signing of the MTA.
- Where material is transferred as part of a project with current ethics approval (granted by the National Research Ethics Service) a MTA is generally not required.
- A MTA is always required for a transfer to a third party if that third party is not a part of the study.

- A MTA may be used for transfer of material as part of a study if this is considered to be appropriate, for example to protect any intellectual property rights or if transferring to another country.
- Legislation may be different in the receiving country and this will ensure that conditions of transfer are adhered to.

8. Service level agreements with courier companies

Where courier companies are used, licensed premises are required to have all agreements documented and provided as evidence of the method and dates of transportation.

SOP 6 – Cleaning and Decontamination for Human Material

The purpose of this SOP is to set out over-arching guidance for documenting procedures for the cleaning and decontamination of areas where human tissue samples are used and stored.

The responsibility is devolved to Departments and Institutions to create specific SOPs and to document cleaning and decontamination procedures in relation to the handling and storage of specific human materials.

The documentation must cover the following:

1. Cleaning and Decontamination policies and procedures should comply with established good practice in the handling of biological samples.
2. All areas where human tissue is used should be cleaned immediately after completion of the associated experiments.
3. Routine cleaning will be undertaken in accordance with written local standard operating procedures.
4. Regular cleaning procedures should be carried out in areas intended for work involving human tissue. This includes cleaning work spaces, incubators and biological safety cabinets.
5. Decontamination procedures should also be carried out annually, or when required, for example, after a spill.
6. Trained laboratory staff should undertake decontamination of areas where spillage has occurred. Spilled and contaminated material should be separated and contained using disposable items of equipment that may be autoclaved. To avoid cross-contamination, any potentially contaminated/infected material should be double sealed, labelled with appropriate hazard warning labels and taken to the autoclave unit for separate autoclaving. If appropriate, disposal should then be undertaken in accordance with SOP 7– Disposal of Relevant Human Tissue.
7. Non-disposable equipment used for studies on human tissue should be decontaminated (according to manufacturer's instructions) on completion of each procedure or experiment.
8. The recommended disinfectant for decontaminating surfaces, materials & samples, which are associated with humans is a 1% Virkon™ solution. Virkon is suitable for most applications, but may not always be the best option. This will need to be determined on a case-by-case basis.
9. Documented cleaning and decontamination procedures should be supported by written schedules.
10. All contracts for servicing and validation of autoclaves must be kept and made available for inspection/audit purposes.
11. Contracts and agreements with waste disposal companies must be kept and made available for inspection/audit purposes.

SOP 7 – Disposal of Relevant Human Material- HTA STANDARD ON TRACEABILITY

Human tissue sample disposal is necessary under the following circumstances:

- If the patient/volunteer has withdrawn consent for use.
- If the integrity of the sample is irretrievably compromised.
- If the ethical approval or consent for study dictates that samples must be destroyed, eg at the end of a study or if the MTA requires so.
- If the consent for use limits the use to a particular study and can no longer be used.
- If the research has created by-products such as small tissue fragments.

Departments are responsible for ensuring that local disposal policies reflect the requirements of the HTA.

Human tissue disposal will be undertaken as an on-demand service, as it is anticipated that the majority of human tissue samples held by the University will be retained and used as research resource until its exhaustion (consent permitting).

Departments must carefully document disposal in order to provide a complete audit trail from donation through to disposal.

1. The electronic record/logbook shall record the following regarding the disposal of stored material:

    - Unique sample number
    - Identification of the relevant tissue to be disposed of
    - Reason for disposal
    - Date of disposal
    - Amount of tissue disposed of
    - Method of disposal
    - Name of person approving disposal
    - Person undertaking disposal
    - REC reference number (if applicable)

2. The material shall be disposed of with sensitivity and shall be disposed of in accordance with Health and Safety Requirements, Environmental Protection Agency and the Human Tissue Authority.
3. Material that is no longer used for research, or stored for use in research, can be dealt with as clinical waste.
4. If the consent (or other records) indicates that special disposal routes are required, then a previously agreed SOP should be approved by the DI/PD and be followed. Additionally, if the sample represents an additional risk, for example due to the presence of hazardous chemicals or sharps, then a previously agreed special waste disposal procedure should be followed.
5. Best practice at the University deems that this should be performed through incineration in accordance with current guidelines if it is solid waste (including slides and tissue blocks).
6. If the waste is a fluid it should be treated according to current Health and Safety Guidelines, Environment Agency and the Human Tissue Authority guidelines.
7. It is normal practice to dispose of small items of material by incineration. This includes: tissue fragments trimmed from the tissue sample before it is processed for histology; the tissue in the sections trimmed from a wax embedded block before the usable sections are cut and the unrecoverable bodily material that is washed out of the tissue during its processing into a wax block.
8. For the disposal of human tissue that is deemed particularly sensitive, such as foetuses, still-born and new-born babies, it is expected that a specific SOP would be developed and applied.

SOP 8 – Storage of Relevant Human Material- HTA STANDARD ON PREMISES

This document aims to provide guidance for Departments, Persons Designate and staff working under their direction so that they are fully aware of the procedures needed to ensure that the requirements for storage of human material under the HT Act and HTA Codes of Practice are met.

1. Access to the licensed premises/collection must be restricted to authorised persons to preserve the integrity of the collection and its records. If this is not possible (for example freezers are not kept locked), all those who could potentially access human tissue must have HTA awareness training as part of their induction and instructed not to access the tissue to avoid any potential loss of traceability (see GQ3, Standard 2).
2. All staff handling human tissue must be appropriately trained. They will need to be aware of the risks of handling human tissue and measures in place to reduce any risk.
3. All staff handling human tissue should be immunised against Hepatitis B (and other infectious diseases as applicable) and their immune titre monitored at regular intervals by Occupational Health, as advised.
4. Storage sites (freezers etc) must be clearly labelled as containing human tissue samples being held under the HTA Licence or NREC approval as appropriate.
5. HTA Standard PFE3 [*Equipment is subject to recommended calibration, validation, maintenance, monitoring, and records are kept*]. Equipment used for storage must be adequately **maintained** on an agreed, pre-determined and regular basis. As a minimum this should include -80 °C freezers and cryogenic storage tanks. This is recommended to be by annual maintenance contracts, but if a Department decides that it is too costly, then it will have to be done by regular internal inspections and maintenance - all of which must be formally recorded as being completed.
6. Storage sites such as freezers, fridges, cold rooms and cryogenic storage tanks must have an appropriate **temperature monitoring** and alarm system installed, and not rely solely on an audible alarm.
7. PDs must establish a system whereby monitoring/alarm/call-out systems (such as those provided by T-SCAN *** see below**) are routinely challenged and temperature plots from the monitoring system are also regularly reviewed and recorded as being done. For example:
    a. create an **SOP** regarding T-SCAN alarm and call-out system testing to be carried out 3 times per year at set regular intervals.
    b. create and maintain a written **log** of having carried out both the T-SCAN alarm & call-out testing and the review of the temperature plots.
    c. Print out and file/save electronically the annual validation test certificates provided by eg T-SCAN.
8. HTA standard PFE3 [*Staff are provided with suitable personal protective equipment*]. Laboratory attire eg lab coat and latex/nitrile gloves and other applicable protective wear, must always be worn when handling human tissue and specimen containers which hold human tissue. Care must be taken to examine specimen containers. Where there are problems eg with leakage or broken containers, these incidents must be logged as an adverse event or incident and follow-up action taken (refer to SOP 9). This standard also applies to other safety equipment. It is mandatory to have operational fixed oxygen depletion monitors in laboratories/areas where significant quantities of liquid nitrogen are stored [30] .

*** Methods for alarm and call out testing as recommended by T-SCAN**

The standard procedures that T-SCAN recommends can be undertaken either in-house or by T-SCAN as part of its preventative service and maintenance contract for an additional cost.

An alarm test would mean forcing a sensor into alarm (just one per alarm group is needed). If there is more than one HTA storage unit, it is better if the HTA sensors are clustered into one group.

[30] https://www.safety.admin.cam.ac.uk/subjects/biologicals/liquid-nitrogen-biological-labs.

There are two methods that can be followed as recommended by T-SCAN:

1. **Remotely** via T-SCAN web interface (T-SCAN can support offsite)

Temporarily alter the sensor thresholds remotely through the T-SCAN web interface such that the sensor reading exceeds the new threshold for a period longer than the Alarm Delay.

- The thresholds will need returning back to its original settings.
- These steps will be logged in the T-SCAN web Audit Trail.
- The Alert will generate a Remedial Action for updating and recording to the system Audit Trail.
- An additional Custom Audit entry with additional information can be added.

2. **On-Site**

Removing a sensor from its device and forcing an alarm through the change in temperature provided this is sufficient to exceed the threshold for a period longer then the Alarm Delay.

- The sensor will need returning back to its device.
- The Alert will generate a Remedial Action for updating and recording to the system Audit Trail.
- An additional Custom Audit entry with additional information can be added

T-SCAN can be contacted to discuss any of the above advice points.

SOP 9 – Adverse Event and Incident Reporting for Relevant Human Material-HTA STANDARD ON GOVERNANCE & QUALITY SYSTEMS

The purpose of this SOP is to outline the process for reporting adverse events and incidents (including near misses) relating to relevant human material. Examples of adverse events include:

- Specimen loss
- Missing or incorrect documentation
- Security breach
- Abnormalities in storage temperature readings
- Inappropriate disposal

Any staff member working with human material must report an adverse event or incident as soon as possible via AssessNET, using the procedure outlined below, which will notify the Designated Individual (DI) and the Safety Office. Where necessary, an investigation or root cause analysis may be conducted. Effective corrective and preventative actions (CAPA) are taken where required and improvement in practice are made, as agreed with the DI. There is currently no requirement for adverse events and incidents to be reported directly to the Human Tissue Authority (HTA) from establishments in the research sector, however, the DI may contact the HTA for additional advice. All adverse events and incidents must be logged, reported, addressed and monitored via AssessNET and will be reviewed by the HTA (Research) committee and at Departmental level.

All members of the University can log a new incident or near miss on AssessNET. If you are unable to access AssessNET or have any issues with the Software, do not delay in reporting the adverse event or incident, instead email hta@admin.cam.ac.uk with details.

AssessNET is used by all staff for the reporting of Health & Safety accidents, incidents, and near misses and includes a section for the reporting of human tissue adverse events or near misses. For further information and training on AssessNET please refer to the Safety Office website[31] [32] [33].

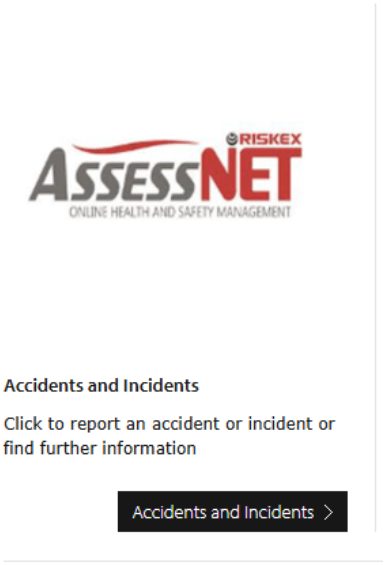
[31] https://www.safety.admin.cam.ac.uk/subjects/accidents-and-incidents

[32] https://www.safety.admin.cam.ac.uk/system/files/hsd092e.pdf

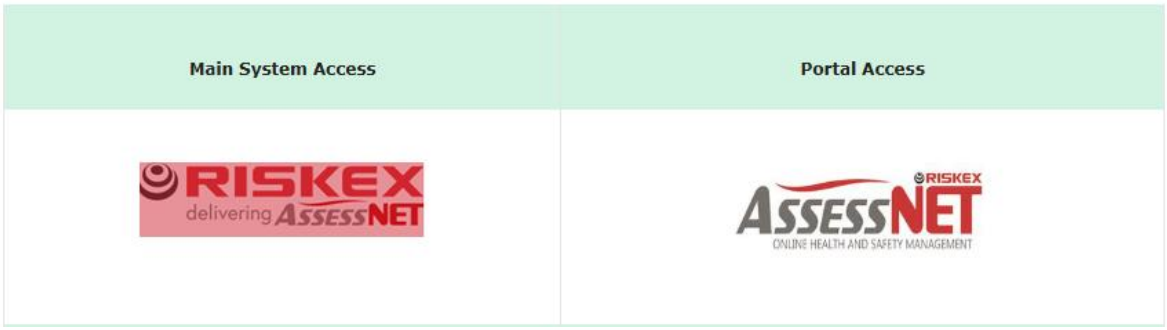
[33] https://www.safety.admin.cam.ac.uk/system/files/hsd093e.pdf

Procedure for reporting an adverse event or near miss for relevant human material using AssessNET:

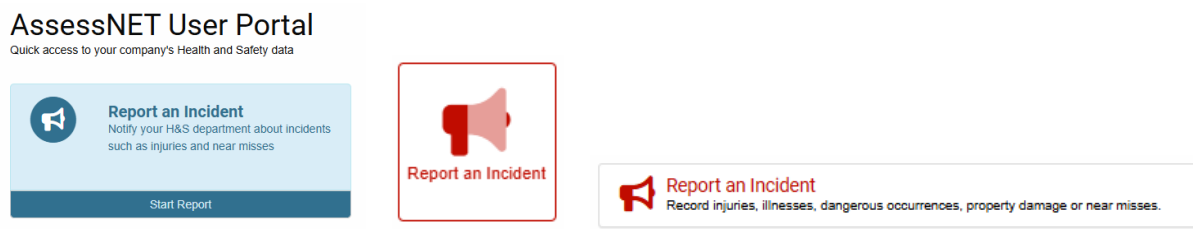
1. Access the Safety Office website homepage (https://www.safety.admin.cam.ac.uk/) and click the **AssessNET** button for reporting of accidents and incidents.



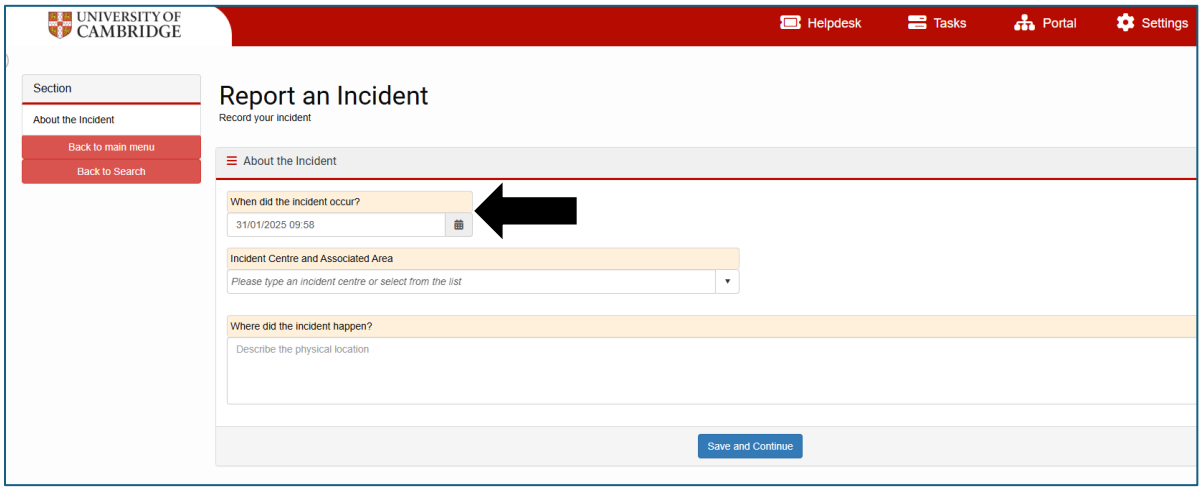
2. Two options for access will then be available. Registered users (Safety Officers or individuals assigned to investigate the adverse event/incident) should click **'Main System Access'** all other staff should click **'Portal Access'**. Both links will then require the user to login with their credentials.



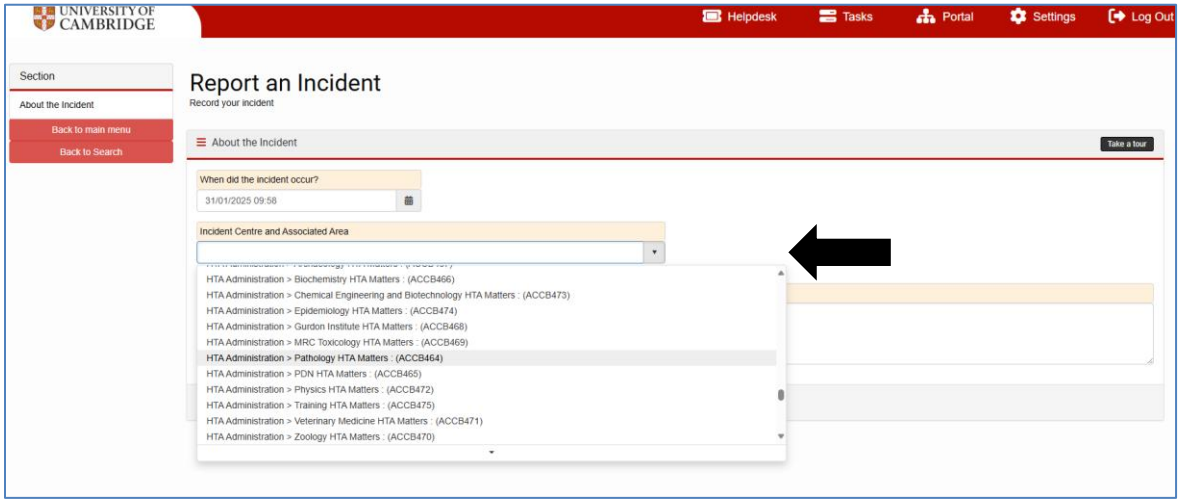
3. Once logged in, from the home page select, **'Report an Incident'** using a button similar to those shown below, the design shown will depend on the login type and user customisation.



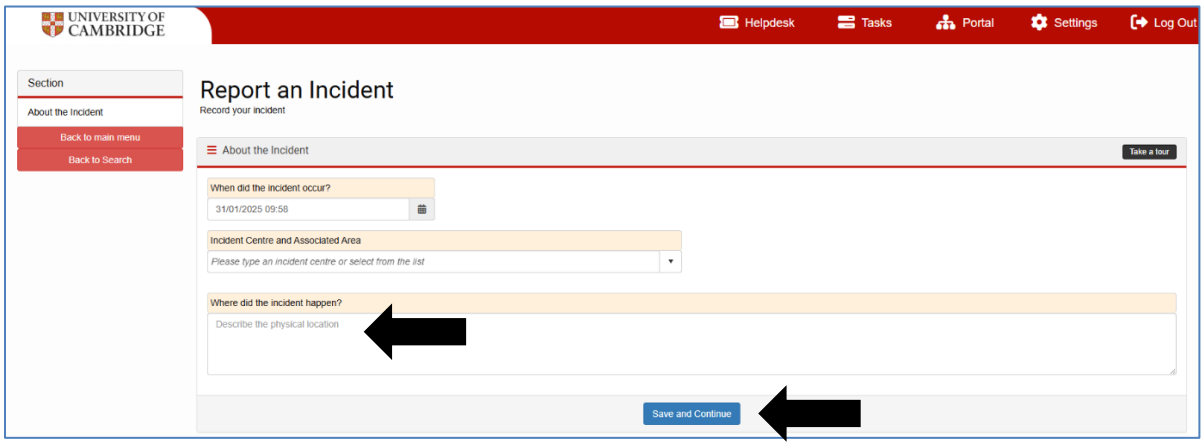
4. An incident information window will then open. Start by **entering the date and time of the incident**, there is a calendar icon to select this.



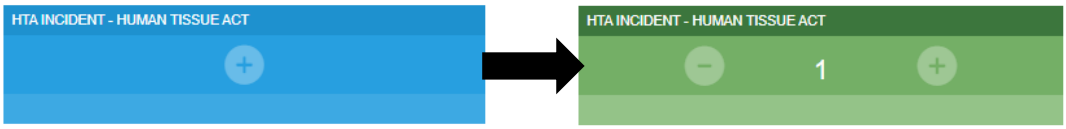
5. **Select the appropriate incident centre and associated area** using the drop down arrow. For all human tissue related incidents ensure a **'HTA Administration'** centre is used, followed by the associated area of the incident. Tip 1: type HTA in the window to narrow down the list of centres. Tip 2: use 'Training HTA matters' to create a mock report for training purposes.



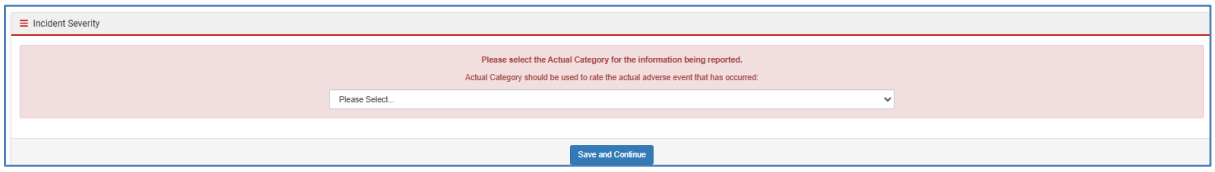
6. **Describe where the incident happened** in the final box. This should be a room number, room type and a building name. Please do not enter room number details for rooms and areas under Police/CTSA (Counter Terrorism Security Adviser) control, instead enter 'security controlled area' or similar. Then click '**Save and Continue'**.



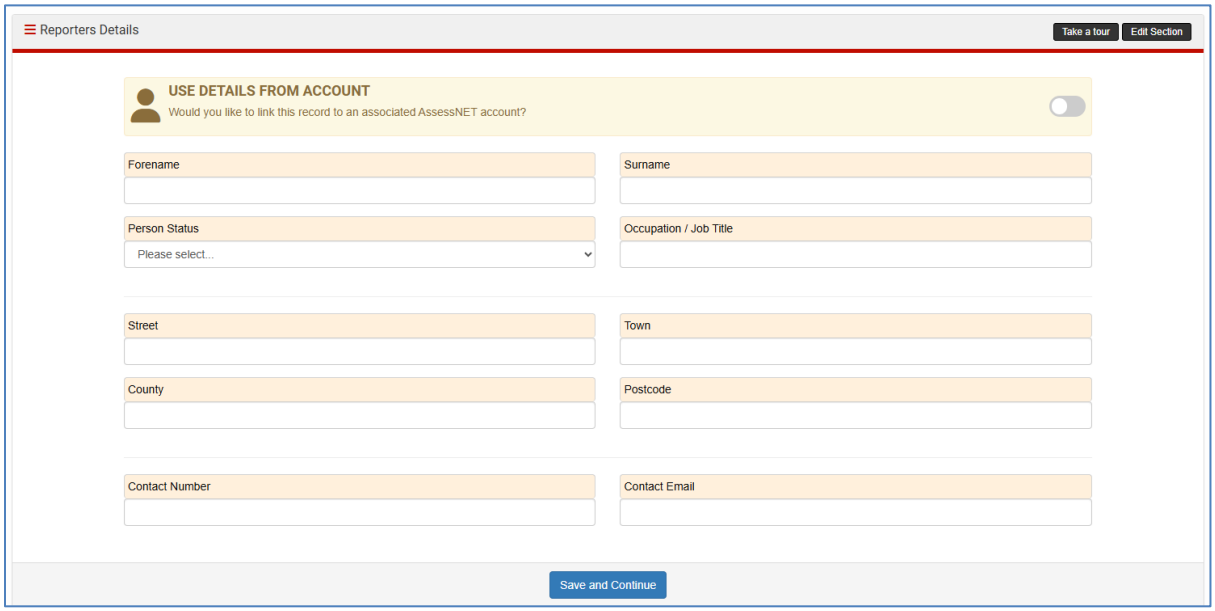
7. On the next screen select the incident type by clicking the '**HTA INCIDENT-HUMAN TISSUE ACT'** button. Once selected this should change from blue to green with a number indicating the number of incidents being reported. Press **'Save and Continue'**.



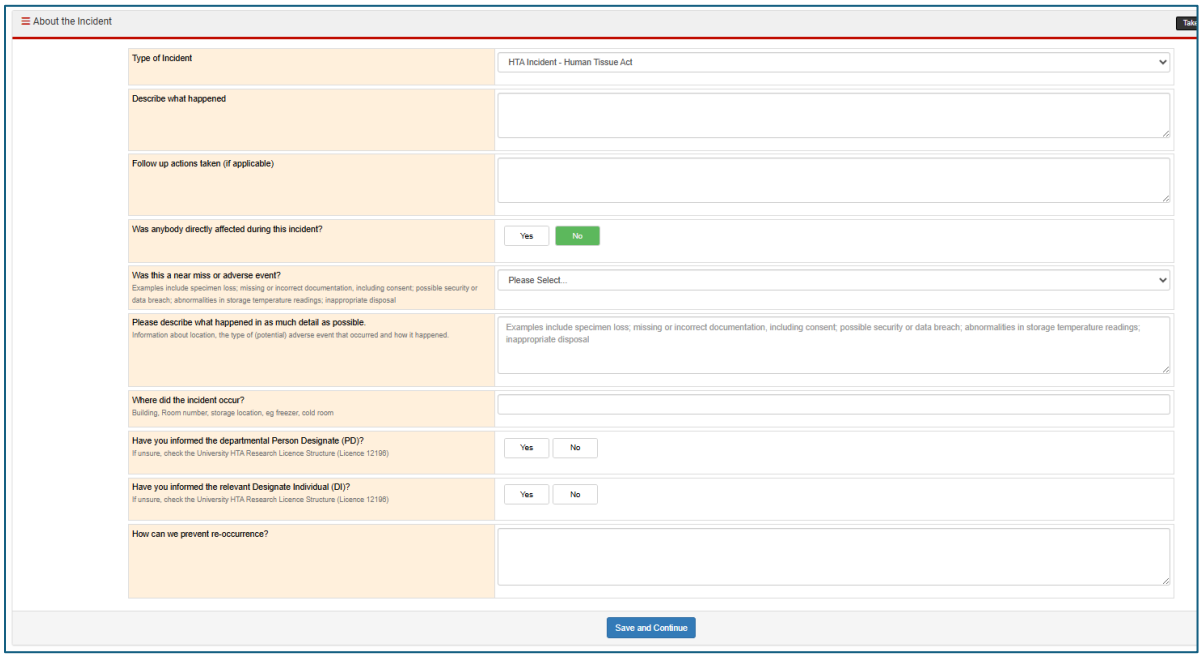
8. In the **'Incident Severity'** category select **'work related'** using the drop down button and press **'Save and Continue'**.



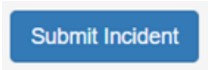
9. On the next screen input the **'Reporter Details'**, there is an option to link the record to the associated AssessNET account details (if you are the PD, DI or DSO) or manually type the information in (if you are a person working with relevant material), press **'Save and Continue'**.



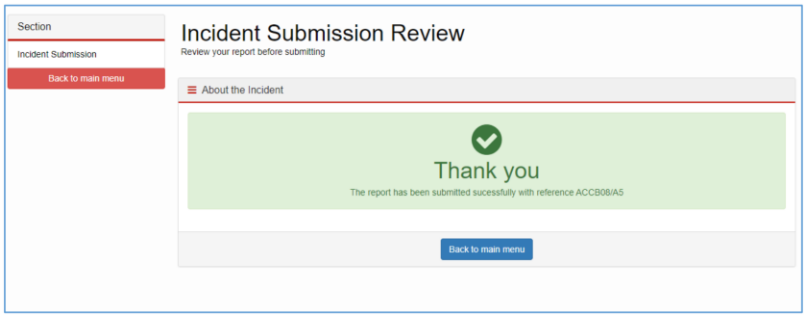
10. Next complete the section **'About the Incident'** with as much detail as possible, press '**Save and Continue'**.



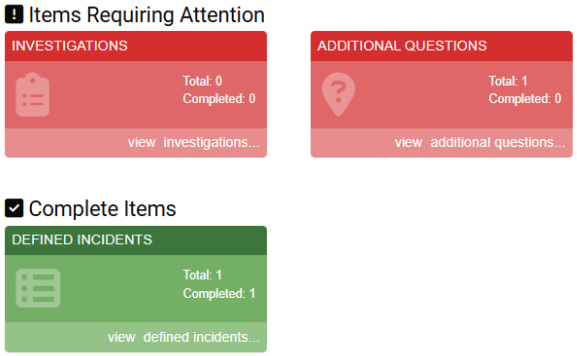
11. An incident report and reference number will now have been generated and a summary page will be shown.
    a. For **<u>portal users</u>**:
        i. An incident submission review page will be shown, information can be edited and amended before being finally submitted. If the information is correct click on the blue **'Submit Incident'** button.



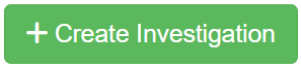
        ii. The screen will then display **'Processing'** and once the submission is successful the below screen is shown and no further action is necessary.



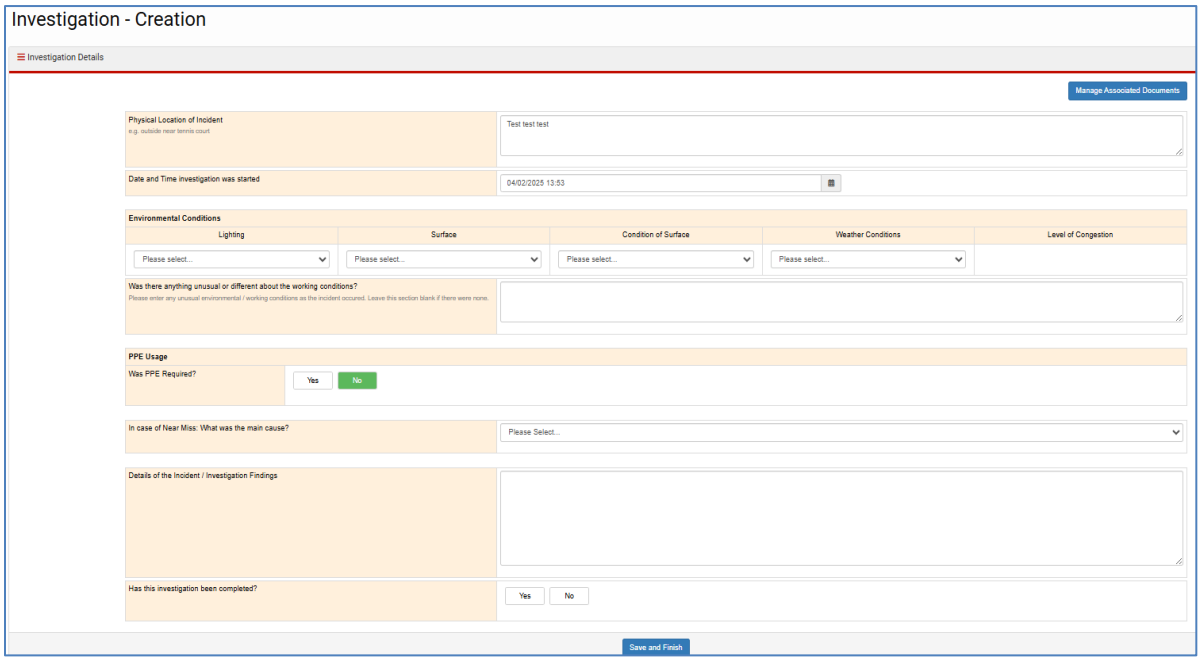
    b. For **<u>registered users (PDs, Safety Officers)</u>**:
        i. the summary page will have additional boxes listed as **'Items Requiring Attention'** as well as '**Complete Items'.** The aim is for all red coloured items (incomplete) to be turned into green coloured items that are listed in the **'Completed Items'** section. Registered users or those investigating the incident should click **'View Investigations'.**



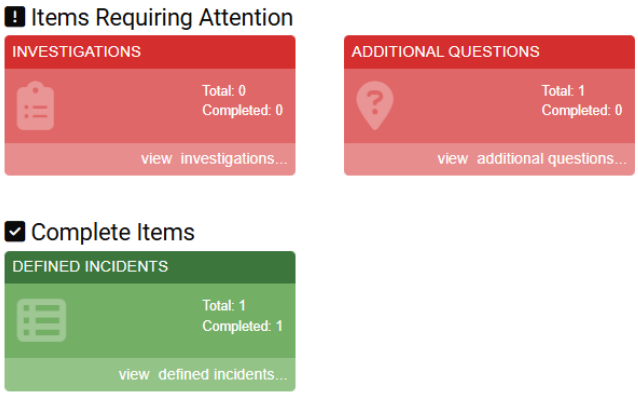
ii. As for all work-related incidents the investigations section must be completed. Click on the green button **'Create Investigation'**.



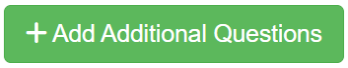
iii. Further information can then be populated on the next screen to investigate the incident further. Once completed click **'Save and Finish'**. The investigation button will only move to the **'Complete Items'** and change from red to green, once it has been marked as completed in the final box of the form. Please note that the questions on environmental conditions are hard wired into AssessNET and can not be disabled. Please select N/A unless relevant.



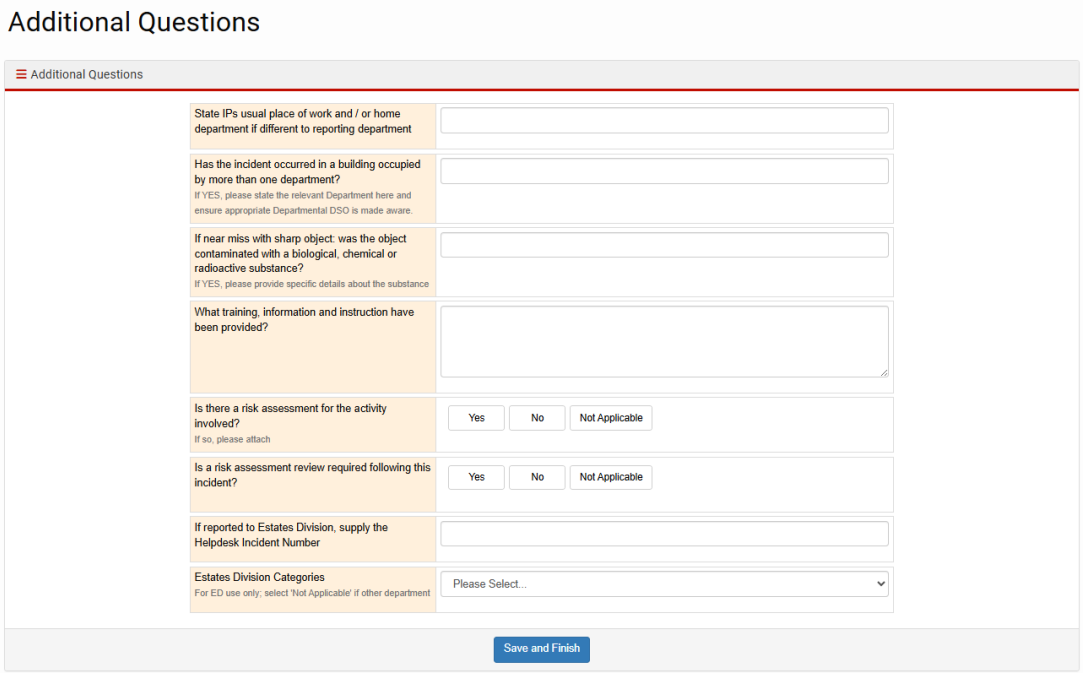
iv. To answer the additional questions, click **'view additional questions'** in the items requiring attention.



v. Click **'Add Additional Questions'**



vi. Additional questions can then be populated on the next screen, see below. Once completed click **'Save and Finish'**.



vii. The additional questions button will move to the **'Complete Items'** and change from red to green.

viii. There is no further action required

12. Any immediate action should be taken to prevent any further incident or worsening of the current incident where possible and if it is safe to do so, e.g. move samples to backup storage freezer if incident is related to freezer storage temperature issues
13. The incident will then be reviewed by the DI who is responsible for following up and ensuring the incident and CAPA have been completed, and the report is signed off and closed.

EXAMPLE Patient/Volunteer Information Sheets

General guidance on the production of patient information leaflets has been prepared by a working group on behalf of Multi-Centre Research Ethics Committees (MREC) and is provided to all MREC applicants. This indicates general issues that must be covered for all research studies[34]. In addition, the following specific issues should be covered in the process of obtaining informed consent and in the patient information leaflet for studies in which samples of biological material will be taken from participants. Information leaflets should always meet basic criteria for good quality information provision.

1. For all samples

- The sample will be treated as a gift.
- The donor has no right to a share of any profits that might arise from research using the sample.
- Who will be responsible for custodianship of the sample (host institution/funding body)?
- What personal information will be used in the research?
- The arrangements for protecting the donor's confidentiality.
- If the research might reveal any information of immediate clinical relevance, this will be fed back.
- Arrangements for feeding back or obtaining access to individual research results, if any, and for informing participants of the outcome of the research.
- Consent to access medical records, if required.
- Specific consent for any genetic tests, if required.
- Specific consent for any xenograft, if required.
- Consent to commercial use, and an explanation of the potential benefits of commercial involvement, if appropriate.
- Consent for generating cell lines, if applicable

2. If the sample is to be stored for possible secondary use

- The types of studies the sample may be used for and the diseases that may be investigated.
- Possible impact of secondary studies on the interests of donors and their relatives.
- Means of accessing information on secondary studies, if appropriate.
- Secondary studies will have to be approved by an ethics committee.
- Consent to share samples with other users and the location of those users.
- Consent to commercial use, and an explanation of the potential benefits of commercial involvement, if appropriate.

[34] http://www.hra-decisiontools.org.uk/consent/ and https://www.hra.nhs.uk/planning-and-improving-research/best-practice/informing-participants-and-seeking-consent/

EXAMPLE Consent Form Template

[Host Institution headed paper]
[To be modified for specific project requirements]

Thank you for reading the information about our research project. If you would like to take part, please read and sign this form.

Centre number: (*if applicable)*:

Study number: *(if applicable)*

Patient identification number for this study: *(if applicable)*

Title of project: .....

Name of researcher: .....

Contact details for research team: .....

Please circle as applicable

1. I have read the attached information sheet on this project, dated ……. (version……..), and have been given a copy to keep. I have been able to ask questions about the project and I understand why the research is being done and any risks involved. **Yes/No**

2. I agree to give a sample of *(blood-afterbirth-tissue-other, as appropriate)* for research in this project. I understand how the sample will be collected, that giving a sample for this research is voluntary and that I am free to withdraw my approval for use of the sample at any time without giving a reason and without my *(medical treatment)* or legal rights being affected. **Yes/No**

3. I give permission for someone from the research team to look at my medical records to get information on (*complete as appropriate*). I understand that the information will be kept confidential *(if applicable).* **Yes/No**

4. I understand that (my doctor and/or I, as appropriate) will be informed if any of the results of the medical tests done as a part of the research are important for my health *(if applicable).* **Yes/No**

5. I understand that I will not benefit financially if this research leads to the development of a new treatment or medical test. **Yes/No**

6. I know how to contact the research team if I need to, and how to get information about the results of the research **Yes/No**

7. Consent for storage and use in possible future research projects*

I agree that the sample I have given and the information gathered about me can be stored by (*name of custodian*) at the (*name of host institution*) for possible use in future projects, as described in the attached information sheet. I understand that some of these projects may be carried out by researchers other than (*name of study team*) who ran the first project, including researchers working for commercial companies.

8. Consent for genetic research**

SECTION A: For genetic tests of known clinical and/or predictive value:

I give permission for (*name of genetic test*) to be carried out on the sample I give, as part of this project. I have received written information about this test and I understand what the result could mean to me and/or members of my family.

I want/do not want (**delete as applicable**) to give consent for genetic research.

I want/do not want (**delete as applicable**) to be told the results of this test if I consent to undergo it.

I understand I can change my mind about this later.

SECTION B: For other genetic research:

I understand that (*the project/future research, as appropriate*) using the sample I give may include genetic research aimed at understanding the genetic influences on (*complete as appropriate*) but that the results of these investigations are unlikely to have any implications for me personally.

....

Name of patient (BLOCK CAPITALS) | Date | Signature

....

Name of person taking consent (if different from researcher) (BLOCK CAPITALS) | Date | Signature

....

Name of researcher (BLOCK CAPITALS) | Date | Signature

Would you like to be sent information about the progress of this project? **Yes/No**

Form version and date ……..

Thank you for agreeing to participate in this research

***Participants must be given written information to keep on possible future research - its goals, the types of tests that are to be done, the diseases that might be investigated, and how the results might affect their interests. The written information should also include an explanation of the safeguards in place to protect their interests, including information on ethical review and how their confidentiality will be protected.*

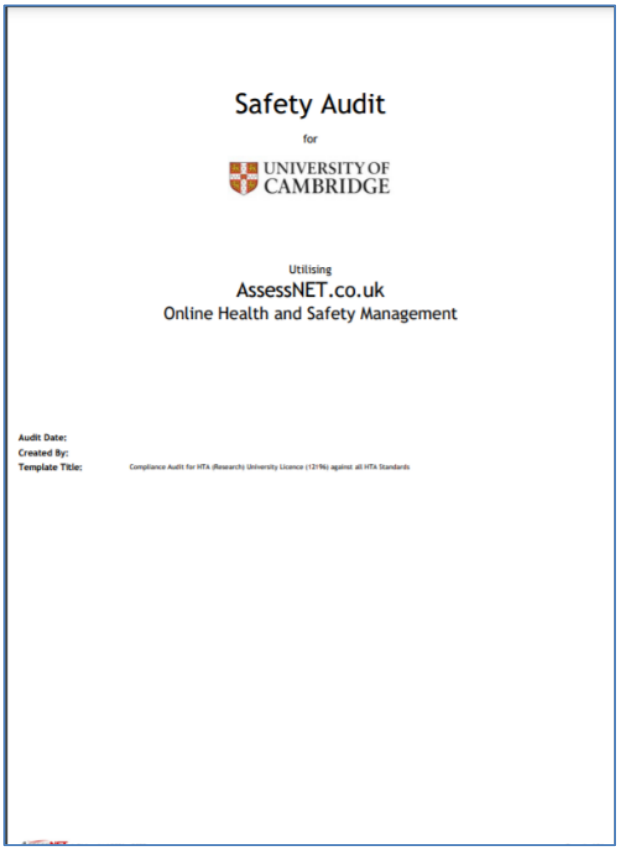
****If genetic research may be carried out on the sample then specific consent is required. One or both sections A, or B, should be included in the consent form*

Example of Internal HTA Audit template

The question set used for when conducting internal HTA audits is based entirely on the HTA Code E Standards and Guidance document. Code E can be found at: https://content.hta.gov.uk/sites/default/files/2020-11/Code%20E%20standards.pdf

A copy of this has been used to create a template for internal use. It can be found on the Safety Office website at: https://www.safety.admin.cam.ac.uk/system/files/hta_audit.pdf.

See below for example screenshots of the first 2 pages:



Safety Audit

for

UNIVERSITY OF CAMBRIDGE

Utilising

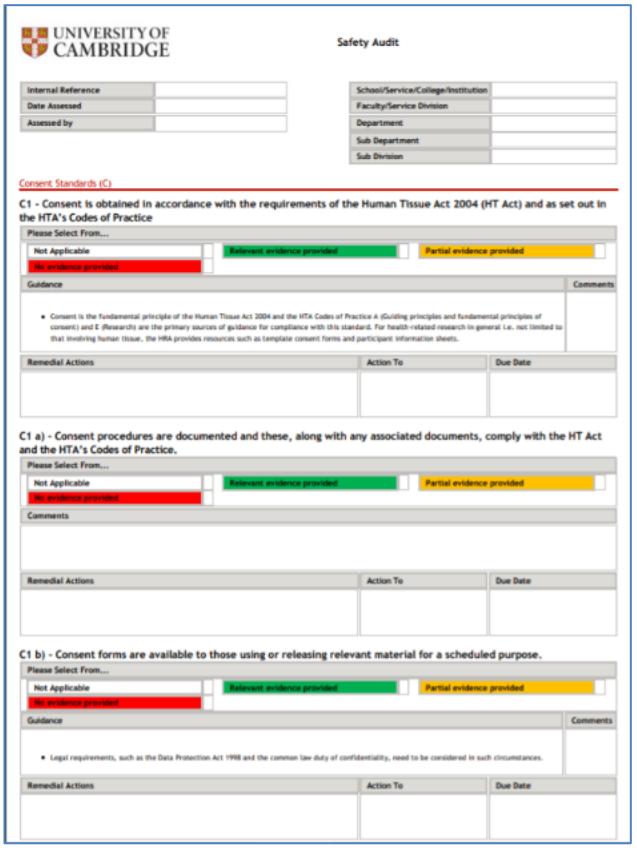
AssessNET.co.uk

Online Health and Safety Management

Audit Date:

Created By:

Template Title:



UNIVERSITY OF CAMBRIDGE

Safety Audit

Internal Reference

Date Assessed

Assessed by

School/Service/College/Institution

Faculty/Service Division

Department

Sub Department

Sub Division

Consent Standards (C)

C1 - Consent is obtained in accordance with the requirements of the Human Tissue Act 2004 (HT Act) and as set out in the HTA's Codes of Practice

Please Select From...

Not Applicable

Relevant evidence provided

Partial evidence provided

No evidence provided

Guidance

Comments

Remedial Actions

Action To

Due Date

C1 a) - Consent procedures are documented and these, along with any associated documents, comply with the HT Act and the HTA's Codes of Practice.

C1 b) - Consent forms are available to those using or releasing relevant material for a scheduled purpose.

HSD086B

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