HUMAN TISSUE IN RESEARCH - MANUAL

The collection, storage and use of human tissue in research

Mhairi Anderson
Quality Assurance and Development Manager

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HTA-QUAL-2

Edition 1

This Human Tissue in Research Manual has been designed to give researchers a comprehensive overview of the procedures for obtaining, storing and using Human Tissue in research. For information on the Newcastle University Quality Policy and Quality Management System that has been adopted to support human tissue research, please refer to the Quality Manual (HTA-QUAL-1).
Prologue

At Newcastle University we undertake fundamental translational research in a diverse range of disease areas, to develop innovative new treatments, tests and medicines to improve human health. In order to do this, we rely on the generosity of donors, including healthy volunteers, who kindly provide their tissue samples for use in research projects. Human tissue samples are a precious gift, and their removal, storage and subsequent use in research projects in Newcastle is carefully controlled to ensure that all the regulations are met, and that donor wishes are respected.

This manual has been written using the framework of the MRC Data and Tissues Toolkit and the Human Tissue Act Codes of Practice. The purpose of this manual is to provide researchers with an overview of the regulations that relate to the use of human tissue in research. In doing so, this should ensure that researchers are clear on the procedures that must be followed for the collection, transfer, storage, use and disposal of material.

This manual should be read alongside the Quality Manual, which sets out the Quality Policy and Quality Management System adopted by Newcastle University to support human tissue research and ensure compliance with the regulations.

Dr Chris Morris
Designated Individual, Newcastle University Research Sector Human Tissue Act Licence (ref. 12534)
APPROVAL

Author

Mhairi Anderson
Quality Assurance and Development Manager

5th March 2018

Date

Approvers

Dr Chris Morris
Designated Individual
Newcastle University research Human Tissue Authority licence (ref. 12354)

3rd April 2018

Date
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<tr>
<th><strong>Access Committee</strong></th>
<th>A committee with delegated ethical approval from an NHS Research Ethics Committee to review any applications to use the ethical approval of a research tissue bank.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biobank</strong></td>
<td>A collection of human tissues, cells and blood that can be used for medical research, or for other purposes. It can contain many different types of biological samples (e.g. tissue samples, DNA and blood) and information (e.g. health records, diet and lifestyle information, and family history of disease, gender, age, and ethnicity). See also “Research Tissue Bank”.</td>
</tr>
<tr>
<td><strong>Existing Holdings:</strong></td>
<td>Human samples (relevant material) held immediately prior to 1st September 2006</td>
</tr>
<tr>
<td><strong>Data Protection Act (1998)</strong></td>
<td>The <strong>Data Protection Act 1998</strong> (DPA 1998) is an act of the United Kingdom (UK) Parliament defining the ways in which information about living people may be legally used and handled. The main intent is to protect individuals against misuse or abuse of information about them. The Data Protection Act is to be replaced with the General Data Protection Regulation (GDPR) on 25 May 2018 (see GDPR below).</td>
</tr>
<tr>
<td><strong>Designated Individual (DI):</strong></td>
<td>The named individual designated for the Licence as the person under whose supervision the licensed activity is authorised to be carried out. This person is responsible for ensuring that other persons to whom the licence applies are suitably trained and qualified; that suitable practices are carried out in the course of carrying out the licensed activity; and for compliance with the conditions of the Licence. The HTA must be satisfied as to the suitability of the person nominated as DI.</td>
</tr>
<tr>
<td><strong>GCP</strong></td>
<td>Good Clinical Practice</td>
</tr>
<tr>
<td><strong>Hub site:</strong></td>
<td>Term for the main site named under a Human Tissue Authority licence</td>
</tr>
<tr>
<td><strong>HRA</strong></td>
<td>(NHS) Health Research Authority</td>
</tr>
<tr>
<td><strong>Human Tissue:</strong></td>
<td>Any and all constituent parts of the human body formed by cells.</td>
</tr>
<tr>
<td><strong>Human Tissue Act 2004 (HT Act, The Act)</strong></td>
<td>Legislation that regulates the removal, storage and use of human tissue, defined as material that has come from a human body and consists of, or includes, human cells.</td>
</tr>
<tr>
<td><strong>Human Tissue Authority (HTA)</strong></td>
<td>Regulator who oversee compliance with the Human Tissue Act</td>
</tr>
<tr>
<td>---------------------------------</td>
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</tr>
<tr>
<td>IRAS</td>
<td>Integrated Research Application System</td>
</tr>
<tr>
<td><strong>Licence Holder:</strong></td>
<td>The person or corporate body responsible for applying for the Licence and who would also apply to vary the Licence e.g. to change or substitute the DI. In the case of a corporate body, a named individual will act as its representative. The HTA must be satisfied as to the suitability of this person and prefers individual licence holders to be more senior than the DI.</td>
</tr>
<tr>
<td><strong>Material transfer agreement (MTA):</strong></td>
<td>Agreement established between organisations that govern the transfer of one or more materials from the owner (or authorised licensee) ('the provider') to a third party ('the recipient') who may wish to use the material for research purposes.</td>
</tr>
<tr>
<td>MRC</td>
<td>Medical Research Council</td>
</tr>
<tr>
<td>NIHR CRN</td>
<td>National Institute for Health Research Clinical Research Network</td>
</tr>
<tr>
<td>NRES</td>
<td>National Research Ethics Service</td>
</tr>
<tr>
<td><strong>Person Designated (PD):</strong></td>
<td>A person to whom the Licence applies, and who is named on the licence. In the Medical School, there is a PD for each group storing human tissue under the licence. At the satellite sites, there are lead PDs who co-ordinate and monitor compliance within their site. The PD assists the DI in supervising the licensable activities within their groups.</td>
</tr>
<tr>
<td><strong>Portfolio adoption</strong></td>
<td>Activity data of studies and recruitment from the <strong>NIHR portfolio</strong> is used to inform NHS infrastructure allocation and supports the performance management of each of the Clinical Research Networks.</td>
</tr>
<tr>
<td><strong>Relevant Material:</strong></td>
<td>Material other than gametes, which consists of or includes human cells. In the Human Tissue Act, references to relevant material from a human body do not include:</td>
</tr>
<tr>
<td></td>
<td>a) embryos outside the human body</td>
</tr>
<tr>
<td></td>
<td>b) hair and nail from the body of a living person</td>
</tr>
<tr>
<td></td>
<td>c) cell lines</td>
</tr>
<tr>
<td></td>
<td>d) any other human material created outside the human body</td>
</tr>
<tr>
<td></td>
<td>e) Serum, plasma, DNA and RNA.</td>
</tr>
<tr>
<td></td>
<td>The HTA has produced a supplementary list of materials on which guidance as to their status as relevant material has been given. This list is not intended to be exhaustive or exclusive.</td>
</tr>
<tr>
<td><strong>Research:</strong></td>
<td>A study which addresses clearly defined questions, aims and objectives in order to discover and interpret new information or reach new understanding of the structure, function and disorders of the human body. Research attempts to derive new knowledge and includes studies that aim to generate hypotheses, as well as studies that aim to test them or develop practical applications of new knowledge.</td>
</tr>
<tr>
<td><strong>Research Ethics Committee (REC):</strong></td>
<td>An National Research Ethics Service committee established to advise on matters which include the ethics of research investigations on relevant material which has come from a human body.</td>
</tr>
<tr>
<td><strong>Research Tissue Bank (RTB):</strong></td>
<td>A tissue collection which has gained generic ethical approval for a broad range of future, yet unspecified research within a given scope.</td>
</tr>
<tr>
<td><strong>Satellite site:</strong></td>
<td>Premises within the same organisation on a different site to the main (hub) site, that is under the same governance processes and quality management system, and supervised by the same Designated Individual.</td>
</tr>
<tr>
<td><strong>Scheduled Purposes:</strong></td>
<td>The activities relating to the removal, storage and use of human organs and other tissues that require consent, listed in Schedule 1 of the HT Act e.g. research in connection with disorders or the functioning of the human body.</td>
</tr>
<tr>
<td><strong>SOP</strong></td>
<td>Standard Operating Procedures</td>
</tr>
</tbody>
</table>
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1. INTRODUCTION

The use of human tissues in medical research in the United Kingdom is strictly regulated.

Human tissue research must be conducted in accordance with the Human Tissue Act (2004), Data Protection regulations and the NHS Health Research Authority’s (HRA) procedures for conducting medical research.

All research must be carefully planned and funded, and approval sought to ensure the research is ethical and appropriate, and compliant with the regulations. Once initiated, research must be carefully managed, ensuring that appropriate and valid consent is in place for all samples and data, maintaining patient confidentiality, dignity and sample traceability through to study closure.

The following manual sets out an overview of the legislation followed by the steps required to conduct human tissue research, from how to obtain tissue samples (funding, sources, ethics and approvals), to taking consent and sample collection, through to use and disposal.

For a comprehensive model, please refer to the Medical Research Council (MRC) Human Tissue Toolkit [link] and the Human Tissue Act Codes of Practice. For information on how this process is conducted at Newcastle University, please refer to the Quality Manual.

2. LEGISLATION

2.1. The Human Tissue Act

The Human Tissue Act (2004) is a legal framework which regulates the removal, storage, use and disposal of human bodies, organs and tissues. The Act, which came into full effect on the 1st September 2006 and applies to England, Wales and Northern Ireland, was enforced as a direct response to the findings of the Redfern report [link] in which the unauthorised removal, retention, and disposal of human tissue was found at the Alder Hey Children’s Hospital, Bristol Royal Infirmary and many other NHS Trusts.

With consent as its fundamental underlying principal, the Act aims to ensure that all human tissues are now managed in an ethical and sensitive manner, by providing a consistent legislative framework for matters relating to body donation and the removal, storage and use of human organs and tissue.

2.1.1. Who regulates compliance with the Human Tissue Act?

The Human Tissue Authority (HTA) is an independent government body which has been established to regulate compliance with the Human Tissue Act.

The HTA has the following objectives:

- To ensure that clear standards are in place for the use of human tissues
- To inspire public and professional confidence in medical research by ensuring that human tissue is used safely and ethically, and with proper consent
- To provide researchers with support and guidance to ensure best practice.

To achieve these objectives the HTA has created a number of codes of practice. The codes of practice provide guidance for researchers and lay down expected standards for each of the sectors the HTA regulates. The codes are designed to support professionals by giving advice and guidance based on real-life experience.

There are currently six Codes of Practice:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code A</td>
<td>Guiding principles and the fundamental principle of consent</td>
</tr>
<tr>
<td>Code B</td>
<td>Post-mortem examination</td>
</tr>
<tr>
<td>Code C</td>
<td>Anatomical examination</td>
</tr>
<tr>
<td>Code D</td>
<td>Public display</td>
</tr>
<tr>
<td>Code E</td>
<td>Research</td>
</tr>
<tr>
<td>Code F</td>
<td>Donation of solid organs and tissue for transplantation</td>
</tr>
</tbody>
</table>

A copy of these codes can be found on the HTA website at the following address: [https://www.hta.gov.uk/hta-codes-practice-and-standards-0](https://www.hta.gov.uk/hta-codes-practice-and-standards-0)

These codes have been written to reflect the following principles:

- **Consent** and the wishes of the donor or family have priority when removing, storing and using tissue and organs
- **Dignity** should be paramount in the treatment of human tissue and bodies.
- **Quality** should underpin the management of human tissue and bodies.
- **Honesty and openness** should be the foundation when communicating about the use of human tissue and bodies.
2.1.2. Human Tissue Act Licensing

2.1.2.1. Which sectors does the Human Tissue Act regulate?

To reflect the fact that human tissue may be used in a number of different environments, the Human Tissue Authority licenses and inspects organisations across a number of different sectors – 6 in total. Four of these sectors are licensed under the Human Tissue Act, and two are covered by separate legislation.

They authority also assesses living organ donation and bone marrow or peripheral blood stem cell donation from adults who lack capacity to consent and children who lack capacity to consent.

The sectors regulated by the Human Tissue Authority are summarised in Table 1, below. For full information, refer to the Human Tissue Authority website: [http://www.hta.gov.uk/](http://www.hta.gov.uk/)

### Table 1- Sectors licensed and inspected by the Human Tissue Authority

<table>
<thead>
<tr>
<th>Sector</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sectors under the Human Tissue Act regulations</strong></td>
<td></td>
</tr>
<tr>
<td>1. Anatomy</td>
<td>Establishments carrying out anatomical examinations/storing anatomical specimens</td>
</tr>
<tr>
<td>2. Post Mortem</td>
<td>Establishments removing and/or storing organs, tissues or cells from a deceased person, or storing the human body as part of a post mortem</td>
</tr>
<tr>
<td>3. Public Display</td>
<td>Establishments storing bodies or organs, tissues or cells obtained from a deceased person for the purpose of public display.</td>
</tr>
<tr>
<td>4. Research</td>
<td>Establishments <strong>storing</strong> human organs, tissue and cells for research purposes other than for a specific ethically approved research project (as approved by a recognised Research Ethics Committee).</td>
</tr>
<tr>
<td><strong>Sectors under the Human Tissue Human Tissue (Quality and Safety for Human Application) Regulations 2007 (Q&amp;S Regulations),</strong></td>
<td></td>
</tr>
<tr>
<td>5. Human Application</td>
<td>Establishments storing tissue for human application – i.e. for use on, or in a human recipient for patient treatment e.g. grafts, stem cells</td>
</tr>
<tr>
<td>6. Organ donation and transplantation</td>
<td>For organisations involved in organ donation and the transplantation of organs into recipients</td>
</tr>
</tbody>
</table>

Please note, if a researcher wishes to remove tissue from the deceased for use in research, they must obtain a separate licence to do so. As this manual relates to the research sector only, further information on the research sector is provided overleaf.
2.1.2.1.1. The Research Sector

As shown in Table 1, a “Research Sector” Human Tissue Act licence is required for establishments storing human organs, tissue and cells for research purposes other than for a specific ethically approved research project (as approved by a recognised Research Ethics Committee).

This means that samples that are currently in use in projects which have been approved by a recognised NHS National Research Ethics Service (NRES) Research Ethics Committee (REC) are exempt from requiring storage under a Human Tissue Authority licence. For further details on research ethics, please refer to section 3.5.

A research sector HTA licence is only required to store tissues which are classed as “relevant materials” under the Human Tissue Act (2004). A description of relevant materials is provided below.

2.1.2.2. Which materials are covered by The Act?

According to The Human Tissue Act (2004), a Human Tissue Authority licence is required for any material deemed to be “Relevant Material” under Section 53 of The Act. A definition of relevant material is provided below:

**RELEVANT MATERIAL**

“Material, other than gametes, which consists of, or includes human cells”

The fundamental principle underpinning The Act is that if a sample is known to contain even a single cell that has come from a human body (i.e. a bodily material), then the sample should be classified as relevant material.

However, this does not include:

(a) embryos outside the human body - this is covered by the Human Fertilisation & Embryology Act 2008

(b) hair and nail from the body of a living person.

Researchers must therefore determine if the material they wish to store is a “relevant material”. For a comprehensive list of relevant materials, please refer to the HTA website: [https://www.hta.gov.uk/policies/relevant-material-under-human-tissue-act-2004](https://www.hta.gov.uk/policies/relevant-material-under-human-tissue-act-2004). Categories of relevant material are provided overleaf and summarised in Figure 1.

---

2.1.2.2.1. **Categories of “Relevant Material”**

- **Specifically identified**

  This includes material like bodily organs and tissues, consisting largely or entirely of cells, and clearly identifiable and regarded as such. This category of relevant material includes human bodies, internal organs and tissues, skin and bone.

- **Processed material**

  Where a process has been conducted which results in the cells being removed from the tissue (i.e. the material is rendered “acellular” – does not consist of cells).

**Importantly:**

A Human Tissue Authority licence is only required to store cells. If the cellular component is removed, or disrupted, a HTA licence is not required to store the material.

To aid researchers to conduct their work:

- The Human Tissue Authority grants researchers **up to 7 days** to remove the cellular component of relevant material. During this time, the material can be stored without a HTA licence. However, after 7 days, if the material has not been processed to remove the cells, and no further exemption applies, then the material must be stored under a HTA licence.

- Where it is believed that the processing has rendered the material acellular, the HTA may seek assurance that the processing has been carried out.

- Under this category plastinated tissue and plastinated body parts (where the cellular structure is retained by the plastination process) are to be regarded generically as relevant material; while plasma or serum, for example, is not regarded as relevant material.

- **Bodily waste**

  Bodily waste is a less well characterised group of materials. Nevertheless the Authority considers that bodily waste is relevant material as it may contain human cells. In cases where a researcher believes that material, intended for a scheduled purpose, is actually acellular the researcher would need to consult the Authority for advice.
Cell deposits and tissues on microscope slides

In general cell deposits or tissue sections on microscope slides are considered to constitute relevant material. This is because such deposits or sections are likely to contain whole cells or are intended to be representative of whole cells.

Figure 1- Human Tissue Authority categories of relevant material

2.1.2.3. What about DNA?

DNA in itself is not bodily material so someone holding extracted DNA does not commit an offence under the Act by processing DNA or “bodily material” which could be used to obtain DNA.

However, anyone holding bodily material without the consent of the person/s concerned, intending to analyse the DNA and to use the results, could be breaking the law. It is an offence to analyse DNA without qualifying consent (unless it is for an excepted purpose) and could lead to a fine, a term of imprisonment of up to three years, or both.
2.1.2.4. Licensing Exemptions

The following exemptions exist where a HTA licence is not required to store relevant material for research:

- **Processing** – The material is processed within 7 days to remove the cellular component.
- **Storage purpose** – If the material is being stored for other purposes e.g. diagnostics, post-mortem, anatomical examination etc.
- **Storage is incidental to transportation** – Material can be stored for up to 7 days prior to transportation to another premises, without the need for a HTA licence.
- **Use**
  - Material is being used as part of a NRES REC approved research project, or,
  - Material is being used as part of a study approved under a NRES REC approved research tissue banks ethical approval
  *NB: Approval from a University ethics committee does not provide an exemption from HTA storage.
- **Age** - Material is over 100 years old

For a summary of licencing requirements, see Figure 2.
I want to work with human tissue – Do I need a Human Tissue Act Licence?

- HTA licence not required

Is your material classed as a “Relevant Material” under the Human Tissue Act?

- yes
  - Consult the HTA or the NBB QA Manager
- unsure

Is the tissue stored with the intent of rendering it acellular within 7 days?

- no
  - See guidance on obtaining a licence for:
    - carrying out a post mortem
    - public display or anatomy
- yes

What is the primary purpose you store organs, tissue or cells for?

- Diagnostic purposes (taken from living only)
  - Is the tissue storage incidental to transportation?
    - No
      - HTA licence not required
    - Yes
      - HTA licence required
- For research purposes (living or deceased)
  - Is the material received from a Research Ethics Committee (REC) approved tissue bank with permission to authorise research?
    - No
      - Is the material more than 100 years old?
        - No
          - HTA licence not required
        - Yes
          - HTA licence required
    - Yes
      - Is storage for a specific research project with Research Ethics approval?
        - No
          - HTA licence not required
        - Yes
          - Are you storing organs, tissue or cells to distribute to other researchers?
            - No
              - HTA licence not required
            - Yes
              - Are you storing organs, tissue or cells for a future undefined project or a project without ethical approval?
                - No
                  - HTA licence not required
                - Yes
                  - HTA licence required

Figure 2 - Summary of licensing requirements

3 It should be noted that to be exempt from requiring an HTA licence to store relevant material, ethical approval must be in place from a recognised NHS Research Ethics Committee. Ethical approval from a University ethics committee is not sufficient, and an HTA licence would be required to store material in this case.

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Thursday, 12 April 2018

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Printed copies, although permitted, are deemed Uncontrolled 7 days after the date above.
2.1.2.5. How are licenses assigned?

The HTA licenses premises not people. Licences are assigned in two ways

1. Standalone premises are where an HTA licence covers a single premise only.
2. Hub premises with satellite premises.

Where licensable activities are at different locations, such as a university carrying out research on human tissues and/or cells on two different campuses (like Newcastle University), one location (e.g. the main campus) can become the hub premises and the second location (e.g. the International Centre for Life) can become a satellite of the hub.

Hub and satellite arrangement may be a useful licensing solution for large or complex establishments, where the same type of activity is carried out under a single governance system across multiple locations.

This is summarised in Figure 3, below.

![Figure 3 - Licensing Premises](image)

Satellite premises must be under the same governance as the hub premises, including supervision by the Designated Individual (DI). The DI is responsible for ensuring that suitable practices are carried out at any licensed premises under their governance, and for ensuring compliance with the HTA’s licensing conditions and standards. Management of a hub and satellite premises requires the DI to put robust systems in place to ensure that the same governance systems are implemented across all licensed premises.

The HTA expects the DI to make regular visits to any and all satellite premises to verify that the governance systems are working in practice. Additionally, the HTA requires the DI to nominate, and inform the HTA, of appropriate individuals named “Person Designated” based at each of the satellite premises to oversee the activities taking place under the licence. For further information refer to section 2.1.3
2.1.2.6. What activities are permitted under a Human Tissue Act licence?

Each Human Tissue Act licence clearly sets out the activities which may be conducted under that licence. These activities, called “Licensable activities”, fall into the following categories:

1. Carrying out an anatomical examination
2. Making of a post mortem exam
3. Removal of relevant material from a deceased person
4. Storage of a relevant material for a number of scheduled purposes
5. Storage of anatomical specimens
6. Public display of relevant material from deceased persons.

Where a relevant material is to be stored for a number of “scheduled purposes” the scheduled purposes are defined as the activities relating to the removal, storage and use of human organs and other tissue that require consent. A list of scheduled purposes is provided in Table 2, below.

**Table 2 – Consent requirements under the Human Tissue Act for scheduled purposes**

<table>
<thead>
<tr>
<th>Scheduled purpose</th>
<th>Consent required for human tissue from the living</th>
<th>Consent required for human tissue from the deceased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Removal</td>
<td>Storage</td>
</tr>
<tr>
<td>Anatomical examination</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Determining the cause of death**</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Establishing after a person’s death the efficacy of any drug or other treatment administered to them</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Obtaining scientific or medical information about a living or deceased person which may be relevant to any person (including a future person)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Public display</td>
<td>X*</td>
<td>✓</td>
</tr>
<tr>
<td>Research in connection with disorders, or the functioning of the human body</td>
<td>X*</td>
<td>✓</td>
</tr>
<tr>
<td>Transplantation</td>
<td>X*</td>
<td>✓</td>
</tr>
<tr>
<td>Clinical audit</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Education or training</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Performance assessment</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Public health monitoring</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Quality assurance</td>
<td>X*</td>
<td>X</td>
</tr>
</tbody>
</table>

✓ Consent is required under the HT Act
X Consent is not required under the HT Act
* Consent is required under the common law of removal of tissue from the living
** Consent is not needed for investigating cause of death under the authority of the coroner
2.1.3. Roles and responsibilities under a Human Tissue Act licence

The HTA prescribe that three key roles are required under The Act. These are:

1. Licence Holder (LH)
2. Designated Individual (DI)
3. Persons Designated (PD)

These roles and the associated responsibilities are summarised in Figure 4 and explained in full in the Human Tissue Act Standard Operating Procedure 2 (HTA-SOP-2). Although the PD role imposes no legal responsibility, it is a licence requirement that the Designated Individual has documented evidence of the PD’s acceptance of the PD role.

![Diagram showing roles and responsibilities]

Figure 4 - Roles and responsibilities required under a HTA research licence

2.1.4. HTA Licensing Standards

The standards that must be followed under a research sector Human Tissue Act licence are set out in the Research Sector Code of Practice, found on the HTA website (https://www.hta.gov.uk/hta-codes-practice-and-standards-0). A copy of these standards, including guidance on best practice, are provided in Appendix A. Further information on quality management and audit are provided in section 9.
2.1.5. Consequences of non-compliance with the Act.

It is a licence requirement that no person shall conduct a licensed activity other than under the authority of the licence granted. The offences recognised under The Human Tissue Act are summarised as follows:

<table>
<thead>
<tr>
<th>Offences under The Human Tissue Act:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Removal, storage or use of human tissue for Scheduled Purposes (see Table 2) without appropriate consent</td>
</tr>
<tr>
<td>2. Storage or use of human tissue donated for a Scheduled Purpose but used for another purpose</td>
</tr>
<tr>
<td>3. Trafficking of human tissue for transplantation purposes</td>
</tr>
<tr>
<td>4. Carrying out licensable activities without holding a licence from the HTA</td>
</tr>
<tr>
<td>5. Having human tissue, including hair, nail, and gametes (i.e. cells connected with sexual reproduction), with the intention of its DNA being analysed without the consent of the person from whom the tissue came or of those close to them if they have died. (Medical diagnosis and treatment, criminal investigations, etc., are excluded).</td>
</tr>
</tbody>
</table>

A person who contravenes this is seen to have committed an offence unless he/she reasonably believes:

- That what he/she does is not an activity to which the licensed activities applies
- That he/she acts under the authority of a licence.

If a licensed establishment was found not to be complying with Human Tissue Act regulations, the Human Tissue Authority may take regulatory action against the establishment and/or the Designated Individual, for example by:

- proposing additional conditions to the HTA licence, which the licensed establishment would be required to comply with by a certain date
- issuing special directions that impose requirements on a licensed establishment with immediate effect
- suspending or revoking a licence providing written and oral advice and guidance or advice and warning;

The Human Tissue Authority may refer the matter to the police under its protocol for managing potential breaches of human tissue legislation, if any offences are suspected of being or have been committed under the applicable legislation.

The approach adopted would be risk based and proportionate to the situation, as determined on a case by case basis. Should an establishment be found to be non-compliant, this would have significant reputational and practical implications for the institution.
2.2. Data Protection

The storage of data is not included under the Human Tissue Act, but is governed separately under the Data Protection Act (1998) (to be replaced with the General Data Protection Regulation (GDPR) on 25 May 2018)

However the Human Tissue Act does state that systems should include data protection and protect donor confidentiality. Data relating to donated samples may be either:

- **Identifiable data** – Data which clearly link to a particularly individual e.g. name, address, date of birth or NHS number.

- **Coded/link-anonymised data** – Data which cannot directly identify an individual, but can be reconnected back to the donor, if required, by the use of a controlled code.

- **Anonymised data** – data which cannot be linked back to the original donor, as all links have been removed.

Generally researchers use anonymised patient data wherever possible. However, sometimes it is necessary to access information that can directly or indirectly identify a specific individual.

Researchers must always ensure that where patient identifiable data is stored, confidentiality is maintained in compliance with the terms of The Act, including the use of secure, password protected computer systems with restricted access.

Researchers wishing to store or use patient identifiable information from NHS patients must apply for permission to do so.

The Caldicott application asks for information on the WHO, WHY AND WHERE of patient identifiable data.

If you wish to store patient names, initials, date of birth, address, or any other patient identifiable information, you will be asked

- WHO will have access to the data
- WHAT data will be stored
- WHY it is needed, and
- WHERE the data will be stored.

The Caldicott Guardian may contact you to suggest alternatives.

For researchers using tissues and data from the Newcastle upon Tyne Hospitals Trust patients, refer to the Newcastle Quality Manual for information.
Governance of data storage:

- Following the 1997 report of the Review of Patient Identifiable Information, chaired by Dame Fiona Caldicott, large NHS organisations (and non-NHS organisations using the data) must now nominate an appropriate Caldicott Guardian to act as the 'conscience' of the organisation, and review requests to store or use patient data.

- Researchers wishing to store patient identifiable data must therefore apply to the appropriate Caldicott Guardian, detailing the purpose of using confidential information and how confidentiality will be maintained.

- Access should be on a strict need-to-know basis, and data securely protected in password protected computer systems, with restricted access.

- Where patient data is stored by groups working at Newcastle University, evidence must be made available to prove that approval has been granted to store this information.

2.3. The Care Act (2014)

The Care Act 2014 came into effect from April 2015 and replaced most previous law regarding carers and people being cared for. It outlines the way in which local authorities should carry out carer's assessments and needs assessments; how local authorities should determine who is eligible for support; how local authorities should charge for both residential care and community care; and places new obligations on local authorities.

The Health Research Authority (HRA) was established in December 2011. Its main purposes now, in accordance with the Care Act 2014, are to:

- Protect and promote the interest of patients and the public in health and social care research
- Co-ordinate and standardise practices relating to regulation
- Recognise and establish Research Ethics Committees (RECs)
- Be a member of UK Ethics Committee Authority (UKECA),
- Promote transparency in research, and
- Provide approvals for the processing of confidential information relating to patients.

All human tissue research involving NHS patients must now be reviewed by the HRA, as set out in section 3.5.
3. SETTING UP A NEW RESEARCH STUDY OR RESEARCH TISSUE BANK INVOLVING HUMAN TISSUE

The sections below provide information on the procedures that must be followed to set up a research study, or research tissue bank, involving human tissue. This is summarised in Figure 5. This information provides a summary of the process only and does not extend to clinical trials. Comprehensive information is provided on the Newcastle Joint Research Office website https://microsites.ncl.ac.uk/njro.

**Figure 5 – Obtaining tissue**

### 3.1. STEP 1: RESEARCH IDEA

When a researcher has an idea for a research project, they must consider a number of factors, including how to locate research funding, identifying collaborators, calculating costs, contracts and ethical and governance requirements. It is therefore vital that they engage the right people to aid their research. Full information is provided on the Newcastle Joint Research Office website at the following link:

https://microsites.ncl.ac.uk/njro/researchers/research-idea/
3.2. STEP 2: FUNDING

All research projects, or the establishment of new research tissue banks, must be appropriately funded. Funding may be obtained from an external funder (e.g. charity, research council etc.) or alternatively, money may already be available through other sources (e.g. researchers own research account – known as a “C-Account”).

3.2.1. External funding

Where funding is to be acquired from an external funder, researchers must put together detailed costings to be submitted as part of a bid. This can be conducted using MyProjects Proposals (MyPP).

- MyProjects Proposals is the web based costing and pricing system that must be used (www.myprojects-proposals.ncl.ac.uk).
- Full details can be found on the Research and Enterprise website: http://www.ncl.ac.uk/res/research/grant-process/application-process/costing-your-proposal.htm
- Each proposal is assigned a BH number and managed by the Grants and Contracts team at the University.
- As part of the MyProjects Proposals form, the researcher is also asked a number of questions to help them to determine if the research needs ethical approval, and if so, from a University or NHS research ethics committee.
- Once funding is secured, the application moves from MyProjects Proposals into MyProjects and can proceed to the next step.

3.2.2. Funding from other sources

Where funding is not required from an external organisation (e.g. held in a personal/C Account of a researcher) the researcher can go straight to the Ethics and Governance (step 2).
3.3. STEP 3: SPONSORSHIP

All research conducted within the NHS must have an identified Research Sponsor. The Sponsor takes responsibility for the conduct of the research, ensuring that there are proper arrangements in place to initiate, manage and finance the study.

<table>
<thead>
<tr>
<th>University Sponsorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle University will act as research sponsor for:</td>
</tr>
<tr>
<td>a) Non-invasive research involving only healthy volunteers participants recruited outside of the NHS and this research is carried out by University staff.</td>
</tr>
<tr>
<td>b) Projects involving tissue from a licensed tissue bank where the license is held by the University and all analysis will be carried out on University premises</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trust Sponsorship*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to the responsibilities relating to sponsorship, all requests for Trust sponsorship of a research project must be fully assessed to ensure:</td>
</tr>
<tr>
<td>a) That it is appropriate for the Trust to act as sponsor</td>
</tr>
<tr>
<td>b) That all risks associated with the project have been identified and appropriately addressed</td>
</tr>
</tbody>
</table>

*Please note that The Newcastle upon Tyne Hospitals NHS Foundation Trust does not co-sponsor studies with any other organisation but may agree to act as Legal Representative if necessary.

Confirmation of sponsorship is always given on the condition that all necessary approvals are obtained prior to the study commencing.

For full information, please refer to the Sponsor Guidance notes on the Newcastle Joint Research Office website:
https://microsites.ncl.ac.uk/njro/files/2013/10/JRO-Sponsorship-Guidance-1.pdf
3.4. STEP 4: ASSESS OPTIONS FOR ACCESSING HUMAN TISSUE

Once a researcher has identified a research question, they may wish to access human tissue for use in their research. They must therefore determine if the material they require is already available (“pre-existing tissue”), or if they need to collect new tissue.

The options available are explained below and summarised in Figure 6, below.

Figure 6 - Obtaining tissue for use in research
3.4.1. OPTION 1: Obtaining pre-existing tissue

A wide range of human tissue samples can be accessed from research tissue banks, both across the United Kingdom and abroad.

A Research Tissue Bank (also referred to as a biobank), is a collection of human tissues, cells and blood that can be used for medical research, or for other purposes. It can contain many different types of biological samples (e.g. tissue samples, DNA and blood) and information (e.g. health records, diet and lifestyle information, and family history of disease, gender, age, and ethnicity). Samples stored in research tissue banks are stored under the Human Tissue Act (2004) regulations. See section 2.1

Samples stored in research tissue banks may have been obtained from a variety of sources, such as part of clinical trials, donated by patients as part of their medical treatment, or provided by healthy volunteers to help support medical research. In enabling access to large numbers of samples, researchers can generate data which is statistically significant, which can lead to meaningful results which can be translated into new treatments or medicines for patients.

Researchers may contact the research tissue bank to determine if the material they require is available. If the material is available, the researcher can submit a request to the Tissue Bank Manager to access the samples. Many research tissue banks have an Access Policy in place which sets out the procedure for requesting access to samples.

<table>
<thead>
<tr>
<th>Submitting a request to access samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A formal application must be submitted specifying the samples required and the proposed use.</td>
</tr>
<tr>
<td>- Requests will be reviewed by an Access Committee based on scientific merit, sample availability and the consent in place, other research proposals and the ethics of the proposed research.</td>
</tr>
<tr>
<td>- In order to use human samples in research, ethical approval is required. Some banks already have ethical approval in place for research to be conducted on the samples. This approval is obtained from a recognised NHS Research Ethics Committee and may be extended to researchers wishing to access samples from their bank.</td>
</tr>
<tr>
<td>- When the request is reviewed, the Access Committee will determine if the proposed research falls within the scope of the ethical approval granted to the bank, or if the</td>
</tr>
</tbody>
</table>
researcher will have to get their own ethical approval to use the samples. A significant advantage of using the banks ethical approval is that it negates the need for the researcher to obtain their own project specific REC approval to conduct their work.

- The researcher will be informed of the outcome of the application. If the researcher is required to get their own ethical approval to use the tissue, see section 3.5.
- The provision of tissue may incur some handling costs. If the bank is a commercial company, further costs will be incurred. See section 3.4.1.2
- If material is to be imported from outside England, Wales or Northern Ireland, please refer to section 3.4.1.1 for further information.
- Any material which is received must be handled in accordance with local health and safety and have a formal transfer agreement in place. For the procedures adopted in Newcastle, please refer to the Quality Manual.

3.4.1.1. Importing and exporting material

Researchers may wish to import material from a country outside the Human Tissue Act (England, Wales and Northern Ireland).

The consent provisions of the Human Tissue Act do not apply to material that has been imported (see section 4) however researchers must be able to

- Assure themselves of the integrity of the material and that, as a minimum, it has been sourced with appropriate consent.
  - Policies and/or SOPs should be in place that clearly set out the evidence indicating how informed consent was obtained, including safeguarding the confidentiality of all information relating to consent.
  - If a separate organisation is importing the material, a documented agreement should be in place demonstrating that there is a record of consent in a suitable format.
- Justify the need to import the material, and that comparable material is not available within England, Wales or Northern Ireland.
  - Researchers must be satisfied for the need to import the material in terms of accessibility, quality, timeliness of supply, risk of infection, quality of service, cost effectiveness, or scientific or research need. Such documentation should be available for inspection by the HTA
- Ensure that imported material is
o Procured, used, handled, stored, transported and disposed of in accordance with the consent which has been obtained.

o Sourced in accordance with legal and ethical requirements in England Wales and Northern Ireland

o It is good practice for approval to be obtained from research ethics authorities within the source country. If it cannot be assured that the ethical standards have been met, then any potential risks of accepting the material should be carefully considered.

o Documented – the supplier’s record of the consignment should be retained for at least 5 years after disposal of the last item in the consignment.

o Disposed of under the requirements of the Human Tissue Act i.e. in the same way as material sourced in England, Wales and Northern Ireland, taking into consideration any specific donor wishes (e.g. to return the material).

o Declared to HM Revenue and Customs

The import or export of tissue is not in itself a licensable activity under the Human Tissue Act 2004. However, once tissue is imported, its storage or use for a scheduled purpose (including research) is subject to licensing by the Human Tissue Authority unless it is for a specific research project with ethical approval from a NHS Research Ethics Committee.

For material imported into Newcastle University for research, it is expected that material must be acquired according to the same high standards that are applied to material within the UK.

For information on obtaining ethical approval to use imported material, see section 3.5.

3.4.1.2. Purchasing material from a Commercial Supplier

Although it is illegal to sell relevant material for transplantation, it is not illegal to sell this material for research purposes and many commercial suppliers have relevant material available for purchase. However, researchers wishing to purchase relevant material must ensure that they have purchased material from a reputable source, and that appropriate consent is in place for the samples and that this is appropriately documented.
3.4.2. OPTION 2: Collecting new tissue

Where pre-existing material is not available, researchers may wish to collect new tissue.

In order to do so, researchers must obtain ethical and governance approval for their proposed research, providing copies of the intended consent forms, patient information leaflets and protocols for approval.

Every time a researcher wishes to conduct a new research project they must do this again, obtaining new individual project-based approval.

In order to overcome this, another option available for researchers is to collect tissue as part of a Research Ethics Committee approved “research tissue bank”.

Researchers can apply to an NHS REC to establish a new research tissue bank, which facilitates the collection of samples for use in a broad range of research projects, under a given pre-approved theme.

Research Ethics Committees can review the overall arrangements for the collection, storage, use and distribution of tissue and provide the Chief Investigator of the tissue bank with delegated authority to review and approve the studies which are conducted under the banks ethical approval.

It is not a requirement to obtain devolved ethical approval for the arrangements of a research tissue bank, however in doing so, this facilitates a wide range of research projects to be conducted without the need to obtain individual project specific approval each time.

Alternatively, a researcher can apply to a previously established NHS REC approved research tissue bank and request for samples to be collected on their behalf, under the banks ethical approval.

The ethical and governance requirements for these three options are provided in the ethics and governance section (section 3.5) overleaf.
3.5.  **STEP 5: ETHICS AND GOVERNANCE**

The process to be conducted to set up a new research project, or research tissue bank, is dependent on whether or not the project involves NHS patients. This is set out in sections 3.5.1 and 3.5.2 below.

Ethical approval may also be required to use existing tissue samples. Information on the ethical and governance requirements for using these tissues is provided in section 3.5.3.

For specific information on the ethical approval required for DNA analysis, see 3.5.4

3.5.1. **Collecting samples from NHS patients**

Three main options exist for researchers who wish to obtain new samples from NHS patients

1. Set up a new specific research project
2. Set up a new research tissue bank
3. Contact an existing research tissue bank to determine if the banks pre-existing ethical approval can be used to collect the samples required.

These options are set out below.

3.5.1.1. **OPTION 1: Setting up a new specific research project**

The following steps are required when setting up a new specific research project. It should be noted that some of these steps may be conducted in parallel. These are set out below.

3.5.1.1.1. **HRA Approval**

In order to collect new tissue samples from NHS patients, researchers must obtain Health Research Authority (HRA) approval. HRA approval incorporates an ethics review, by an independent National Research Ethics Service Research Ethics Committee, with an additional review of governance and legal compliance i.e. is the proposed project deliverable within the NHS and an assessment of associated risk.
This new procedure came into place in 2016 and replaces the need for NHS permission to be obtained from each participating NHS organisation.

Each research study must appoint a Chief Investigator, and where appropriate, Principle Investigator(s).

- **Chief Investigator (CI)**

This is the individual who is responsible for the conduct of the whole project in the UK. Health Research Authority (HRA) policy is that the named CI should normally be a researcher who is professionally based in the UK. This will mean that he/she is able to supervise the research effectively in the UK setting and is readily available to communicate with the Research Ethics Committee (REC) and other review bodies during the application process and where necessary during the conduct of the research.

Further information on the responsibilities of Chief Investigators of Research Tissue Banks is provided as a role description in the HTA Master File.

- **Principal Investigator (PI)**

This is the individual who is responsible for the conduct of the research at a research site. Therefore there should be one PI for each research site. In the case of a single-site study, the chief investigator and the PI will normally be the same person.

As part of this process, researchers must submit copies of consent forms and patient information leaflets that will be used when collecting samples. For further information, please refer to section 4.

Applications should be made through the Integrated Research Application System (IRAS). [https://www.myresearchproject.org.uk/](https://www.myresearchproject.org.uk/). A diagrammatic representation of the process is provided in Figure 7.

It should be noted that once ethical approval is in place from a recognised NHS Research Ethics Committee, any human material does not need to be stored under the Human Tissue Act for the duration of the approval.

Complete on-line IRAS APPLICATION FORM from the IRAS website to collect new tissue or gain approval for a new Research Tissue Bank

https://myresearchproject.org.uk/Signin.aspx

Applications for new Research tissue banks should be flagged to ensure the correct REC is involved

Complete the APPLICANTS CHECK LIST to ensure that all paperwork required to support the application is sent to the REC

- Include a copy of the Human Tissue Act Licence for applications for a new Research Tissue Bank

Decide where to apply and BOOK AN AGENDA SLOT at the next meeting of an appropriate REC. Bookings can be made either:

- direct with a local REC in the NHS domain in which the research is to be conducted. Applications for new research tissue banks are allocated centrally, however these may be reviewed locally,
- or via the Central Allocation System (CAS) depending on the nature of your project

SUBMISSION

- Booking confirmation sent by email, with a unique REC reference number and the closing date for the application.
- Add REC reference number to the online application form, with the name of the NHS REC and submission date.
- Submit Parts A and B of the application electronically to the allocated REC within 4 working days of the booking, also sending paper copies of:
  - Application form with ink signatures, Applicant’s Check List, All relevant supporting documents,

VALIDATION

Validation letter issued within 5 working days, acknowledging submission and confirming validity

SITE-SPECIFIC INFORMATION FORM

For multi-site research, PIs at each site must apply for SSI by completing Part C of the completed application and submit it to the Local REC (LREC) with area responsibility for that particular site, along with a copy of his/her CV. This does not apply for Research Tissue Banks.

Site specific assessor notifies the main REC undertaking the ethical review of any objection to the research on site-specific grounds within 25 days.

ETHICAL REVIEW MEETING BY REC/NOTIFICATION OF DECISION

Notification of decision within 60 days of receiving valid application. Notification of the decision within 10 working days of the review meeting

Final decision

Provisional decision –
One request for further written information 60 day clock stops during data collection

No opinion –
referee needs to be consulted

RESEARCH COMMENCE
WITHIN 12 MONTHS OF APPROVAL

DENIED

APPROVAL

Figure 7 - The Integrated Research Application System (IRAS) process

It should be noted that where new studies are to involve a biobanking component, the Quality Assurance and Development Manager, or Designated Individual should be consulted prior to submission.
3.5.1.1.2. Local NHS Trust Approval

After researchers have submitted their application for HRA Approval they will receive an initial assessment letter, which should be provided along with other documents to the local NHS Trust which will be accessed as part of the study. The participating centres must then conduct a local review of their capability to do the work.

If researchers wish to store patient identifiable data outside the NHS, they must also apply to the NHS trusts Caldicott Guardian, detailing the purpose of using confidential information and how confidentiality will be maintained. See section 3.5.1.1.3 below.

3.5.1.1.3. Caldicott Approval

All large NHS organisations (and non-NHS organisations using patient data) must nominate an appropriate Caldicott Guardian to act as the conscience for the organisation, and review requests to store or use patient data.

The Caldicott application asks for information on:

- WHO will have access to the data?
- WHAT data will be stored?
- WHY it is needed? and
- WHERE the data will be stored?
- HOW long will the data be stored?

To protect patient confidentiality, the Caldicott guardian will look for assurances that access to data is on a strictly need-to-know basis, and data security is protected in password protected computer systems, with restricted access. The Caldicott Guardian may contact the applicant to seek alternatives or to seek further information.

For details of the Newcastle upon Tyne NHS Foundation Trust Caldicott guardian, please refer to the HTA Quality Manual. For other NHS Trusts, consult the following website for a list of nationally registered Caldicott guardians:

http://www.connectingforhealth.nhs.uk/systemsandservices/infogov/caldicott

3.5.1.1.4. Portfolio Adoption

As part of the HRA approval process, researchers can seek support by requesting their study is adopted as part of the National Institute for Health Research Clinical Research Network (NIHR CRN) portfolio of studies. This is conducted by completing a Portfolio Adoption Form (PAF) as part of the IRAS application process.

Portfolio adoption provides a significant number of benefits to researchers and clinical staff. Primarily, the number of accruals to the portfolio is a performance measure in the NHS. Each accrual is assigned a proportion of the portfolio budget to facilitate staff time in the clinic, driving recruitment to deliver studies. Studies which are adopted to the portfolio are therefore prioritised over non adopted studies.
For any study that is eligible or applying for CRN support, portfolio adoption also enables a range of services to be accessed across the research delivery pathway that will help study feasibility, set up and delivery. These include:

- Expert advice
- Site selection
- NHS service support resources
- Training
- Performance monitoring

Information on which studies are eligible for support are provided at the following link: https://www.nihr.ac.uk/funding-and-support/study-support-service/eligibility-for-nihr-support/

The key steps in determining eligibility for portfolio adoption are set out overleaf in Table 3.

The process for adopting research tissue bank studies to the portfolio is different. For information on this process, please refer to section 3.5.1.2.3
Table 3 – Portfolio eligibility criteria

<table>
<thead>
<tr>
<th>Key steps in determining eligibility</th>
<th>Criteria in detail</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Application Form (PAF) potentially eligible? (Point 1)</td>
<td>Valid application with all questions answered correctly</td>
<td>Portfolio application form assessed</td>
</tr>
<tr>
<td>Is there a research question? (Point 2)</td>
<td>Research can be defined as the attempt to derive generalisable (i.e. of value to others in a similar situation) new knowledge by addressing clearly defined questions with systematic and rigorous methods. This excludes: audit; needs assessments; quality improvement and other local service evaluations.</td>
<td>Review IRAS form (protocol if no IRAS form) to determine Study Question and review aims and objectives</td>
</tr>
<tr>
<td></td>
<td>It also excludes routine banking of biological samples or data except where this activity is integral to a self-contained research project designed to test a clear hypothesis. NHS Research Ethics Committee approval and NHS permission are requirements for research to be supported via the NIHR CRN.”</td>
<td>If not happy would contact the CI for further clarification with R&amp;D and Lead CRN cc’d in</td>
</tr>
<tr>
<td>Is the research going on in the NHS? (Point 3)</td>
<td>1. Does this study require CRN support? 2. If yes, please give details of what NHS support costs are being requested from the CRN.</td>
<td>IRAS Form to assess where NHS involvement occurs/ NHS support costs would be needed. If not sure would email Lead CRN for details</td>
</tr>
<tr>
<td>Is the study funded? (Point 4)</td>
<td>Full research costs must be confirmed/awarded before a study can be considered for NIHR CRN Support and inclusion on the NIHR CRN Portfolio.</td>
<td>Review Funding letter and the funding named in the IRAS form (A65) If not sure would email sponsor with Lead CRN cc’d in</td>
</tr>
<tr>
<td>Has the study had appropriate peer review? (Point 5)</td>
<td>Has the study been subject to high quality peer review (please see our definition below)? High quality peer review:</td>
<td>Assessed based on IRAS form Question A54-1 and consideration of Funder. Charities should do their own IIT/studentships/Centre awards and fellowship can be done by sponsor</td>
</tr>
<tr>
<td>Key steps in determining eligibility</td>
<td>Criteria in detail</td>
<td>Evidence</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| Peer review must be independent, expert, and proportionate:  
Independent: At least two individual experts should have reviewed the study. The definition of independent used here is that the reviewers must be external to the investigators' host institution and not involved in the study in any way. Reviewers do not need to be anonymous.  
Expert: Reviewers should have knowledge of the relevant discipline to consider the clinical and/or service based aspects of the protocol, and/or have the expertise to assess the methodological and statistical aspects of the study.  
Proportionate: Peer review should be commensurate with the size and complexity of the study. Large multicentre studies should have higher level (more reviewers with broader expertise and often independent review committee or board), and potentially international peer review | Review Funding letter for correct terms and if not then would contact Funder directly for more information.  
( CI/R&D/CRN are not cc'd into this emails) |          |
| Has the funding been awarded in open competition? (Point 6) | Open competition criteria, as set out in Appendix 1 of our [Eligibility Criteria](#), is defined as:  
a) The competition being open to all appropriately qualified individuals, and  
b) Knowledge of the competition being available to all appropriately qualified individuals, and  
c) The research funder being completely independent of the recipient organisation. |          |
| Is the study of clear value to the NHS? (Point 7) | Assessed by three independent reviewers unless automatically eligible funding stream Protocol and IRAS sent to three independent reviewers to confirm  
If not then deemed not eligible and everyone told. Option to appeal. |          |
<table>
<thead>
<tr>
<th>Key steps in determining eligibility</th>
<th>Criteria in detail</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the study take account of the priorities, needs and realities of the NHS? (Point 8)</td>
<td>Assessed by three independent reviewers unless automatically eligible funding stream Protocol and IRAS sent to three independent reviewers to confirm</td>
<td>If not then deemed not eligible and everyone told. Option to appeal.</td>
</tr>
</tbody>
</table>
3.5.1.2. OPTION 2: Setting up a new Research Tissue Bank

Every time a researcher wishes to conduct a new research project they must obtain individual project-based Research Ethics Committee (REC) approval to do so. This process can be timely and involve a lot of paperwork.

In order to overcome this, researchers anywhere in the UK may apply to a recognised NHS NRES REC for ethical approval to establish a research tissue bank to collect samples for use in a broad range of research projects, under a given, preapproved theme.

Ethics committees can then review the overall arrangements for the collection, storage, use and distribution of tissue.

Applications for ethical approval for research tissue banks is not a legal requirement, however it comes with a number of advantages, primarily the ethical approval facilitates programmes of research without the need for individual project-based ethical approval.

However, obtaining REC approval for a research tissue bank comes with a number of terms and conditions. Primarily, the research tissue bank must:

- Appoint a Chief Investigator who takes ultimate responsibility for the bank’s operations
- Implement an Access Committee to review any requests to use the bank’s ethical approval, in lieu of a full ethical review.
- Submit annual reports to the Research Ethics Committee that approved the bank, documenting the bank’s annual activities, including a list of all projects conducted that year under the bank’s ethical approval.

A formal Access Policy must be implemented to document the bank’s procedures for dealing with requests to collect new samples, or access existing samples stored under the bank’s ethical approval. This process must be made known to potential applicants.

It should be noted that all projects which are approved by the banks Access Committee are considered to have delegated approval from a recognised NHS REC and are therefore exempt from storage under the Human Tissue Act (2004) for the duration of the project.

For further information on research tissue banks, please refer to:

- HTA-HELP-RTB-1: What is a NRES REC approved research tissue bank?
- HTA-HELP-RTB-2: How to write an annual report?

The following steps are required when setting up a new specific research project. It should be noted that some of these steps may be conducted in parallel. These are set out overleaf.
3.5.1.2.1. Ethical review of research tissue banks

Researchers wishing to obtain ethical approval for their arrangements to collect, store, use and distribute tissue from NHS patients must submit an application via IRAS - https://www.myresearchproject.org.uk/

Once a research tissue bank has been approved, the named Chief Investigator will receive a list of terms and conditions that must be abided by. These now include the requirement to register the tissue bank on the UKCRC national directory of tissue banks: https://www.biobankinguk.org/.

3.5.1.2.2. NHS Management Review

Unlike applications to set up new REC approved studies, under the Research Governance Framework there is

- No deliverability/risk review by the HRA.
- No requirement for local NHS permission for research for the establishment of research tissue banks in the NHS.

Instead, local NHS organisations are expected to have included management review in the process of establishing the tissue bank to review their capacity, deliverability and risk review, and, where applicable, applying for licensing of a tissue bank. In Newcastle, this is called the “Management Review Process” – and is set out in SOP-JRO-30, found on the Newcastle Joint Research Office website: https://microsites.ncl.ac.uk/njro/sops/

3.5.1.2.3. Portfolio adoption of research tissue bank studies

Current guidance from the NIHR CRN advises that the establishment and running of tissue banks does not, in itself, constitute a research project. This is because when material is collected for future, yet unspecified use, there is currently no “research question” in mind. Therefore these activities are therefore not eligible for Clinical Research Network support.

However, it is acknowledged that a number of specific research studies can be conducted under the ethical approval of a research tissue bank. If the collection and banking of biological samples, forms an integral part of a structured research project, these projects are eligible for Clinical Research Network support (subject to meeting the other eligibility criteria – see Table 3).

As there is no requirement for research tissue bank studies to gain HRA approval via IRAS, it is not possible to access the Portfolio Application Form (PAF) via IRAS, as set out in 3.5.1.1.4.
Therefore, researchers wishing to apply to adopt research tissue bank studies to the portfolio must instead submit:

- An “Exceptional Circumstances” form – in place of the Portfolio Application Form (PAF)
- A protocol for the project, ensuring this addresses all of the eligibility criteria set out in Table 3.

For support, please contact the Quality Assurance and Development Manager.

3.5.1.3. Option 3: Use an existing research tissue bank to collect new samples

Instead of applying for project specific ethical approval, or to establish a new REC approved research tissue bank to prospectively collect new tissue, researchers can instead use the ethical approval of an existing NRES REC approved research tissue bank to collect new tissue, or have new tissue collected on their behalf, under the banks ethical approval.

Applications must be made to the banks Access Committee, as set out in section 3.4.1.

A number of NRES REC approved research tissue banks are now in operation across the Country. For a list of tissue banks held in Newcastle, please refer to the Newcastle University HTA Quality Manual. For information on other tissue banks in the UK, please refer to the UKCRC tissue directory: https://www.biobankinguk.org/.

3.5.2. Collecting samples from non-NHS patients

Where a new tissue collection is required from non-NHS patients (e.g. healthy volunteers, patients abroad), it is not appropriate to use an NHS ethics committee to review the ethical arrangements. Therefore, ethical approval must be obtained from the University Ethics Committee.

The University Research Ethics Committee is a formal body responsible for developing and implementing an overall ethical framework for considering ethical issues in research. Work with Human participants is amongst the highest risk the University undertakes, given the potential harm. Therefore, there are strict procedures that must be followed.

The University Ethics Committee questionnaire, nicknamed the “Limes Survey” can be found at the following link: http://www.ncl.ac.uk/res/research/gov-ethics/ethics_procedures/ethical-review-process/index.htm.
3.5.3. Obtaining ethical approval to use pre-existing tissue

Ethical approval may also be required to use pre-existing tissue (i.e. stored in a biobank).

Some research tissue banks already have ethical approval in place for research to be conducted on the samples. This approval is obtained from a recognised NHS Research Ethics Committee and may be extended to researchers wishing to access samples from their bank. As set out in section 3.4.1, part of the application process to a banks Access Committee to request samples, the Access Committee will determine if the proposed research falls within the scope of the ethical approval granted to the bank, or if the researcher will have to get their own ethical approval to use the samples.

If a researcher is required to obtain their own ethical approval to use pre-existing tissue in a research project, they must apply to either an NHS Research Ethics Committee (for samples taken from NHS patients) or to the University Ethics Committee (for non-NHS patients).

3.5.4. Research involving DNA analysis – is ethical approval required?

The analysis of DNA is covered under the Human Tissue Act and requires consent to be in place for any analysis to take place. Analysis can however take place without consent or qualifying consent in certain “expected circumstances” which are set out in Schedule 4 of the Act. These, “expected circumstances”, include “research in connection with disorders, or the functioning of the human body”, but only under very specific circumstances. One of these is in the use of DNA analysis on samples from “existing holdings”* but in general, research into the disorders and functioning of the human body is not an excepted purpose.

*Defined under the Act as tissues obtained before September 2006.

For practical purposes, there will therefore need to be an ethical approval in place to allow DNA analysis to take place. This is in order to collect tissue samples from donors, either living or deceased, so that DNA can be extracted for analysis. Under the Human Tissue Act, however, the only circumstances where ethical approval is legally required is in relation to DNA analysis for research is where relevant or bodily material from the living (e.g. blood) is stored with the intention of conducting DNA analysis without consent of the person whose body manufactured the DNA. In these circumstances the material must be non-identifiable to the researcher.

Where consent is in place for DNA analysis, no requirement for ethical approval would arise.
In some cases consent is only given to analyse the DNA for the specific study – in these circumstances, further ethical approval would be needed to analyse DNA in further projects. Researchers may anticipate this by seeking broad consent at the outset.

Under NHS research governance systems, ethical approval is not required for research involving anonymised extracted DNA, as the research involves neither tissue (i.e. cellular material) nor data of NHS patients. Ethical approval would only be required where identifying data is held with the DNA sample. However, it would be open to researchers using anonymised DNA to seek ethical review on a voluntary basis, e.g. if required by their funder/sponsor, or if the project raised unusual issues on which they needed ethical advice.

Voluntary applications may be made for review of DNA banks (“genetic databases”) using the research tissue bank application process, and this could provide generic approval for future projects using identifiable or non-identifiable DNA. The research tissue bank process may be used for any stored biological material, not only where it is relevant material under the HTA.

For further details, please refer to the Health Research Authority website:

3.5.5. Ethical approval for imported tissue

For imported material, it is preferable for tissue to be stored in a licensed establishment. If so, there is no requirement for NHS REC approval to undertake research. However, if the premises where the tissue will be held are not covered by a HTA licence, each research project using the tissue will require NHS REC approval to comply with the Act.

If an application to a REC is required, the researcher should provide assurances to the REC that the tissue has been obtained ethically and in accordance with the legal requirements of the donor country, including specific consent for research if appropriate.

NRES guidance to RECs is to confine its review to the research activities to be conducted in the UK. Provided appropriate assurances are given, no further detailed review will be undertaken of the consent arrangements in the donor country. For researchers wishing to export material for use in other countries, (e.g. with foreign collaborators) there is no legal requirement for licensing or ethical approval. However, applications may be made voluntarily to a NHS REC. The REC will confine its review to the activities to be conducted in the UK, in particular the arrangements for informed consent. It will not undertake detailed scrutiny of overseas research projects. Where appropriate these should be ethically reviewed in the host country. When seeking consent from donors it is essential to inform them of plans to export their tissue outside the UK for use in valid scientific research by overseas collaborators.
3.5.6. Supplying human tissue

Human tissue may be supplied by Newcastle University researchers to external organisations provided that the appropriate ethical approval and donor consent is in place to permit this activity. If the samples are to be exported, or used commercially, specific donor consent should be obtained for these activities.

Researchers should ensure that overseas recipients of human tissue have appropriate ethical approval to work with human tissue and are aware of their obligations (through a suitable Material Transfer Agreement) to store, handle and dispose of any human tissue appropriately.

Samples should be provided on a cost-recovery basis only.

Appropriate transfer agreements should be in place with the recipient organisation to protect the integrity of the samples and associated data, and provide clear roles and responsibilities e.g. on sample delivery, receipt, data handling, publications and disposal.

Commercial activity should primarily be conducted via the NHS Cellular Pathology “CEPA” Research Tissue Bank. Newcastle University research tissue banks will be restricted to academic collaborations, unless ethical approval has been granted to permit commercial collaborations using existing holdings.
4. CONSENT

Once the appropriate approvals and permissions have been obtained to prospectively collect new human tissue samples, the consent process can be commenced and the samples taken.

Consent is the principle that a person must give their permission for their tissues to be retained or used. The principle of consent is an important part of medical ethics and international human rights law, and is a fundamental underlying principal of the Human Tissue Act.

Obtaining consent for participant participation in research is incredibly important. There are legal requirements, such as the Declaration of Helsinki, national, international and common laws, and institutional requirements, such as from employers or professional bodies.

The key principles of consent under the HTA, including cases where consent is not required, are summarised below. The HTA’s full requirements for consent are set out in the HTA’s relevant Code of Practice (Code A: Guiding principles and the fundamental principle of consent, found at https://www.hta.gov.uk/hta-codes-practice-and-standards-0) and in the consent standards, as set out in Appendix A, part 1.

4.1. When is consent required?

Before deciding whether to proceed with the removal, storage or use of tissue for scheduled purposes, researchers should consider if the activity requires consent.

Under the Human Tissue Act, consent is required to conduct a number of activities, called “scheduled purposes”, which differ depending on whether the material is taken from the living or the deceased. This is set out below.

<table>
<thead>
<tr>
<th>General purposes requiring consent are:</th>
<th>For deceased persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anatomical examination,</td>
<td>1. Clinical audit,</td>
</tr>
<tr>
<td>2. Determining the cause of death,</td>
<td>2. Education or training relating to human health,</td>
</tr>
<tr>
<td>3. Establishing after a person's death the efficacy of any drug or other treatment administered to him,</td>
<td>3. Performance assessment,</td>
</tr>
<tr>
<td>4. Obtaining scientific or medical information about a living or a deceased person which may be relevant to any other person, including a future person,</td>
<td>4. Public health monitoring,</td>
</tr>
<tr>
<td>5. Public display,</td>
<td>5. Quality assurance,</td>
</tr>
<tr>
<td>6. Research in connection with disorders or the functioning of the human body</td>
<td></td>
</tr>
<tr>
<td>7. Transplantation</td>
<td></td>
</tr>
</tbody>
</table>
In broad terms, the Act and the HTA's codes of practice require that consent is required to:

1. store and use dead bodies
2. remove, store and use relevant material from a dead body
3. store and use relevant material from the living

However, a number of exemptions exist in which consent is not required.

**Exemptions?**

Tissue from the living may be stored for use and/or used without consent, provided that:

- the research is ethically approved (by a recognised NHS REC)
- the tissue is anonymised such that the researcher is not in possession, and is unlikely to come into possession, of information identifying the person from whose body the material has come.

This does not mean that samples must be permanently and irrevocably unlinked – linking can be made through a third party where necessary – nor that the persons holding the samples cannot themselves carry out the research. If members of the clinical team take part in the research, links may be retained to the relevant clinical or patient records, but they must not contain information giving direct patient identification.

In general, obtaining consent is preferable to developing complex systems for keeping samples unlinked. It represents best practice and has the added benefit of facilitating the process of obtaining ethical approval.

Further exemptions where samples may be stored or used without consent include:

- **“Existing Holdings”**: As law cannot be applied retrospectively, it is not a requirement to have consent in place for samples collected before the implementation of the Human Tissue Act on 1st September 2006. These samples are classed as Existing holdings. However, an HTA licence is required to store these materials.
- Tissue for DNA analysis which is anonymised
- Tissue from the deceased which has been imported
- Tissue taken from the living which is anonymised and has received NHS Research Ethics Committee approval for research without consent

Consent requirements under the Human Tissue Act (2004) are summarised in Figure 8. For full information see Code of Practice A.
Figure 8 - Requirements for consent under the Human Tissue Act

While informed consent is not a legal requirement in some cases, it is best practice to ensure that consent is in place where practical. In addition, the HTA has the power to deem consent to be in place for relevant material from someone who is untraceable, or who has not responded to requests for consent to use of his/her material, if that material could be used to provide information relevant to another person.
4.2. Are there different types of consent?

Donors may be asked to give consent for their tissues to be stored or used for project specific purposes, with exemptions (tiered) or for generic research, as described in Table 4.

<table>
<thead>
<tr>
<th>Type of consent</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project specific</td>
<td>Where the patient only consents to the use of their tissues in a specific research project</td>
</tr>
</tbody>
</table>
| Tiered | Where a number of “opt-outs” are available that a donor can select, for example, where the donor does not wish their samples to be:
  - Used commercially (e.g. Provided to pharmaceutical companies)
  - Used for DNA analysis
  - Used in animals
  - Exported |
| Generic | Where the patient provides broad consent (in terms of duration and scope) for the tissue to be used in unspecified research |

It is recommended to request generic consent, where ever possible to avoid the need to return to the donor to ask for further consent to use the sample in additional research, and prevent the unnecessary disposal of samples when a research project ends.

It is essential that researchers understand what type of consent has been granted, and do not use tissues out with the terms of the patients consent. Information on the type of consent granted by donors, including any specific wishes, and the location of signed consent forms, should be kept alongside sample information in sample tracking systems, and made clearly visible to those accessing samples. All patient identifiable data should be kept confidentially in secure systems, and only accessed by individuals with the authority to do so.

The availability of signed consent forms and security of patient data can be audited at any time by internal or external auditors (the Human Tissue Authority) to ensure that samples are being stored and used in accordance with donor wishes and confidentiality maintained.
4.3. What information should be on a consent form?

A consent form should be a short document that concisely covers the core statements to which the participant is being asked to agree in clear and concise language. The participant should normally be given the opportunity to agree or disagree with each statement (usually through yes/no tick boxes or signing/initialed each statement) and should be asked to sign, print their name and date the form. Space should also be provided on the consent form for the investigator taking the consent to sign, print their name and date the form.

Electronic consent forms may be used where appropriate (e.g. online or computer-based studies), but written and signed consent forms are preferable for research that poses more than minimal risk to participants. Local research ethics committee/departmental ethics contact can advise on specific cases.

While consent forms may differ according to the project, they should normally include at least the following or similar statements:

- I have read and understood the Participant Information Sheet;
- I have been given the opportunity to ask questions and have had them answered to my satisfaction;
- I agree to take part in this project;
- I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason;
- A statement that asks the participant to consent to procedures for handling any personal data collected (e.g. confidentiality, anonymisation, etc.);
- A statement that asks the participant to consent to proposals for data storage, archiving, sharing and re-use for future research;
- (If relevant) A statement that asks the participant to consent to any planned audio or visual recording.

In the case of research, consent forms should also explicitly ask for consent for the following activities:

- If the material is to be exported to another country
- If the samples is to be used in animals
- If the material is to be used commercially (e.g. provided to a pharmaceutical company)
- If DNA is to be analysed from the sample
4.4. What information should patient information leaflets contain?

The Patient Information Leaflet (PIL) should provide potential participants with the necessary understanding of the purpose, methods, risks and benefits of the research and the planned use of the data to be collected to make an informed decision as to whether to participate in your research project. It will also provide potential participants with details of sources of further information to answer any further questions that they might have. The PIL is likely to be the more detailed of the two documents provided, allowing the consent form to be clear, short and concise.

The content and form of each PIL will depend on the nature of, and the level of risk posed by, the specific research project for which they have been designed. In general, however, the PIL should be a clear document that provides the necessary information while being easily understood by those for whom it has been written (for example it should be age appropriate).

While each PIL is likely to be different, there are some core pieces of information that will normally be included:

- Details of the research project (title, funding source, sponsoring institution, source of ethical review etc.);
- The purpose of the research;
- What participation will involve;
- The benefits and disadvantages/risks of participation;
- A clear statement that participation is entirely voluntary and that participants can withdraw from the project at any time without prejudice, now or in future;
- Details of what will happen to the data collected and the results of the research, including:
  - How the data collected will be handled and protected (e.g. confidentiality, anonymisation, data protection);
  - How results will be disseminated;
  - Plans for storage, archiving, sharing and re-use of data (see below for more details);
- Details of who to contact for further information and how to file a complaint.

4.5. Who can give consent?

The term “Appropriate Consent” is used by the Human Tissue Act to define who may give consent. Consent is ideally obtained from the individual themselves, either while they are living, or after their death, as an expression of their wishes. For children, “assent” may be given directly by the child, if it is considered that the child is competent to do so.
"Assent" is a term used to express willingness to participate in research by children who are too young to give informed consent but who are old enough to understand the proposed research in general, its expected risks and possible benefits, and the activities expected of them as subjects. This is classed as “Gillick Competency” after a legal court case in the 1980s relating to taking consent from children.

Assent by itself is not sufficient, however. If assent is given, informed consent must still be obtained from the subject's parents or guardian.

In the case of the deceased, if the wishes of the deceased are unknown, a nominated representative will be asked to make decisions relating to donation, where applicable. If a nominated representative has not been appointed, then the appropriate consent can be given by someone in a qualifying relationship. A summary of qualifying relationships, and the order in which they are ranked, is provide in Figure 9, below.

Figure 9 - Qualifying relationships to provide appropriate consent

It should be noted that a nominated person cannot consent to the use of material for public display or for anatomical examination. Direct consent is required in these cases.
4.6. **Who can take consent?**

The person taking consent does not necessarily have to be the clinician responsible for the patients care (nurse, doctor), but it does have to be someone suitably trained and aware and able to communicate any risks or benefits of the associated donation. Training must include Good Clinical Practice (GCP) training, and may include further training e.g. Informed Consent and Ethics. Records must be made available to demonstrate up-to-date staff training in taking consent, and competency assessed and maintained.

In cases where a third party (e.g. another organisation) takes consent and collects samples on your behalf, a Service Level Agreement (SLA) or other formal agreement should be in place to ensure that consent is obtained in accordance with the Code of Practice on Consent and the HT Act Part 1.

Consent does not have to be given in writing (i.e. by signing a consent form). Although it is easier to demonstrate that consent is in place if it is written, non-written consent (taken verbally, or non-verbally e.g. hand gesture) may be taken provided that an explanation is put into the notes, and is witnessed to explain the reason why consent is not written.

To be valid, consent must be:

- **Voluntary:** Consent must be given voluntarily, by an appropriately informed person who has the capacity to agree to the activity in question
- **Informed:** The person who is giving the consent must have a clear appreciation and understanding of the facts, implications, and future consequences of an action. To ensure this, all necessary information must be provided by the person taking consent. This is classed as “informed consent”
- **Appropriate:** The information provided must be appropriate, and take into consideration the age and mental capacity of the individual giving consent, and any potential language difficulties. Interpreters, Braille, or large font may be provided where appropriate.

All groups should ensure that their consent process (whether taken personally or by a third party) is documented, for example a Standard Operating Procedure (SOP), including the procedure for providing information on consent.

A number of different methods exist for taking consent, as described in Table 5
4.7. Can consent be withdrawn?

When a person gives consent for relevant material to be used for a Scheduled Purpose, that consent remains valid unless the person withdraws it.

Consent can be withdrawn at any time, however if samples have already been used for a Scheduled Purpose (e.g. research), withdrawal of consent does not mean all relevant results should be withdrawn from the research project. This should be clearly stated on the consent form, and communicated to the donor.

In some instances it may not be possible to withdraw consent after sample donation, for example, where the sample has been used immediately and cannot be returned. In these instances, this must be clearly stated on the consent form.

All groups should have systems in place to ensure that where consent has been withdrawn, there are methods to remove samples from use (where appropriate).
### Table 5 – Methods for taking consent

<table>
<thead>
<tr>
<th><strong>Informed/ Express/ Explicit Consent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Informed consent, also known as valid, express or explicit consent, entails giving sufficient information about the research and ensuring that there is no explicit or implicit coercion so that prospective participants can make an informed and free decision about their involvement. Typically, the information should be provided in written form. Time should be allowed for the participants to consider their choices and the forms should be signed off by the research participants to indicate consent. Where participants are not legally responsible, their legal representatives or guardians should be consulted, as well as the participant. Where participants are not literate, verbal consent may be obtained but this should, wherever possible, be witnessed and recorded. In other circumstances, for example telephone interviews, this may not be possible. Where consent is not or cannot be secured, the researcher must submit a full statement justifying the practice to the appropriate Research Ethics Committee. The primary objective is to conduct research openly and without deception. Deception (i.e. research without consent) should only be used as a last resort when no other approach is possible. This principle also requires that research staff need to be made fully aware of the proposed research and its potential risks to them. In longitudinal research it may be necessary to explain the need for (and limitations of) enduring consent; it may also be necessary to re-negotiate consent during the lifetime of the research.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Implicit/Implied Consent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Implied/implicit consent differs from express/explicit/informed consent in that it is not gained through formal methods, such as written or verbal approval. An example of this would be where a person completes a questionnaire. By completing the form, they imply their consent to participate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Post-hoc Consent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-hoc consent is consent that has, as the name implies, been sought and granted after the research has taken place. This is likely to be the case in circumstances where consent needs to be obtained prior to publication.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Proxy consent</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proxy consent for research participants may be necessary when the participant is a vulnerable person. The best interests of the participant must be of the highest importance. In sensitive research involving vulnerable populations, particularly children, the competence of the researcher to undertake the research should be considered. Proxy consent should only be used when participants are unable to consent themselves or where it is legally necessary. Care should be taken that consent cannot be sought from the participants and it should not be assumed that children are unable to consent because of their age. When proxy consent is used, agreed criteria should be used to identify signs that the participant is unwilling to take part or wishes to terminate the research interaction, and fully understands to what they are consenting.</td>
</tr>
</tbody>
</table>
5. SAMPLE TRACKING AND TRANSFER

Once a donor has been consented, and the sample(s) taken, it is essential that all samples are appropriately labelled and tracked to ensure they are clearly identifiable, and can be retrieved at any time (e.g. if the donor withdraws consent). It may also be necessary to transfer the material to another location for use in research (e.g. from a clinic to a University laboratory). In these cases, clear records should be kept to document the transfer and protect the samples, and the associated data, whilst in transit.

Under the HTA Research Standards on Traceability (see Appendix 1) it is a requirement that there is a coding and records system that facilitates the traceability of bodies and human tissue, ensuring a robust audit trail. This includes ensuring there is:

- There is an identification system which assigns a unique code to each donation and to each of the products associated with it (see section 5.1).
- A register of donated material, and the associated products where relevant, is maintained (see section 0).
- An audit trail is maintained, which includes details of: when and where the bodies or tissue were acquired and received; the consent obtained; all sample storage locations; the uses to which any material was put; when and where the material was transferred, and to whom (see section 0).
- A system is in place to ensure that traceability of relevant material is maintained during transport, including:
  - Records of transportation and delivery are kept.
  - Records of any agreements with courier or transport companies are kept.
  - Records of any agreements with recipients of relevant material are kept.

5.1. Assigning unique sample numbers

It is an HTA requirement that there is an identification system which assigns a unique code to each donation and each of the products associated with it, as shown below.

<table>
<thead>
<tr>
<th>Parent/Original Sample</th>
<th>Products</th>
<th>Further Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. 10mL Blood Sample</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Four 1mL derivatives (Child samples) are created from some of the parent sample & given their own unique numbers

Samples 1a, 1b, 1c, 1d

Some of Sample 1b is used to create 1 plasma sample (non-relevant material) and 6 slides.

Samples 1b1, 1b2, 1b3, 1b4, 1b5, 1b6, 1b7
To protect donor confidentiality, patient information is typically not added to samples. Instead, samples may be anonymised and only a sample code used to distinguish samples. In many cases, samples may be link-anonymised. This is where a code will be assigned to a sample, and a person with the appropriate authority will retain a link from this code, back to the original patient details. If the patient were to withdraw their consent, the researcher could be contacted and asked to return/destroy all samples related to the donor. For further information, refer to 2.2

5.2. Register of donated material

Sample tracking records may take a number of formats e.g. paper records, Microsoft Word, Excel or Access, or bespoke databases.

However, regardless of the method used, the system should be:

- Backed up
- Secure – restricted access
- Have an audit trail

Many sample tracking solutions do not present a compliant solution under the Human Tissue Act as they do not meet these criteria. For example, Excel does not retain an audit trail of changes made within the system. In addition, it may be difficult to readily determine sample details/numbers from large quantities of paper records. Therefore, organisations should consider the compliance of their sample tracking solutions to ensure these criteria are met.

Sample tracking records should also indicate:

- **Tissue type** - If the material that is stored is a relevant material under the Human Tissue Act
- **Receipt details** - when and where the bodies or tissue were acquired and received
- **Consent information** – Details of the consent obtained, storage location of consent forms, and any patient opt-outs (e.g. DNA analysis, use in animals).
- **Sample storage locations** – the level of detail (e.g. freezer number, shelf number, box number) is not specified, however information on sample storage locatoin should facilitate the easy retrieval of samples.
- **Use** - the uses to which any material was put e.g. details of REC approved projects the material was used in.
- **Transfer** - when and where the material was transferred, and to whom.
- **Disposal** - Details on samples disposal, including reason, route, date, person responsible. For further information, please refer to section 8.
5.3. Sample and data transfer

If human tissue is transferred between establishments, consideration must be given to safety, and minimising the likelihood of theft, damage or loss during transport. In addition, data should be carefully controlled during transfer to protect donor confidentiality.

Systems should be in place to protect the quality and integrity of human samples during transport and delivery to a destination. Methods should consider the safety of all staff and others who may come into contact with the tissue during transfer (see section 5.3.1).

Some form of formal arrangement, should be in place to define how the human tissue and any associated data is protected, any potential contamination risks associated with the material, and who is responsible for disposal if applicable. Typically, documents called “Material Transfer Agreements” (MTAs) are used.

In some instances, it may be considered that the terms of the transfer are covered by another formal agreement e.g. a collaboration agreement, or protocol. In these instances researchers must be confident that the arrangement satisfies the requirements of the HTA regulations.

For information on transfer agreements used at Newcastle University, refer to the Quality Manual.

5.3.1. Safety during transportation

The transfer of biological samples is not included under the Human Tissue Act regulations, but must comply with safety requirements for sample transport in line with UN3733 standards.

For further information, please refer to: [http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_EPR_2007_2.pdf](http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_EPR_2007_2.pdf)
6. RECEIPT AND STORAGE

Once material is received by a researcher for use in their project, the material must be logged on the group’s sample tracking database, in accordance with section 5.2. Samples should be handled in accordance with any known risks and in compliance with Health and Safety regulations. Researchers must then determine the regulatory requirements for storage (to be stored under the Human Tissue Act or used immediately in a research project) and the storage environment.

6.1. Regulatory requirements for storage

A Human Tissue Act licence is only required for establishments storing human organs, tissues and cells for future research purposes. If the samples are in use as part of a research project which has current REC approval from a recognised NHS REC, the material is exempt from requiring storage under the Human Tissue Act for the duration of the approval.

Storage requirements under the Human Tissue Act are provided below. Data must be stored in accordance with Data Protection regulation, as set out in section 2.2.

6.2. Sample storage requirements

The HTA does not stipulate exact requirements for the storage of relevant material; however, the premises must be ‘fit for purpose’. In general, storage locations should be clean, easily accessible and well maintained. Conditions must be maintained regardless if a tissue is to be held only for a short period of time, or if there are only a few items held under the authority of the licence.

As part of the Human Tissue Authorities licensing standards, “Establishments are expected to have policies in place to review and maintain the safety of staff, visitors and other relevant people e.g. students/donors”.

In addition, patient data should be appropriately stored, and confidentiality maintained

The HTA’s general requirements for sample storage and the options available for researchers wishing to store relevant materials under Newcastle University’s research licence are provided below. For details of the HTA standards relating to premises, facilities and equipment (PFE) refer to Appendix A.
Human tissue should be stored in line with good practice on:

**Security**
- Risks such as theft or damage must be considered.
- Lockable storage facilities, alarm systems and indelible identification marking of human tissue should be used, if appropriate

**Maintenance**
- Establishments and equipment must be well maintained and critical equipment subject to a program of planned preventative maintenance, validation and repair
- Equipment/surfaces must be clean, with a clear decontamination/cleaning policy,

**Monitoring**
- Critical storage conditions should be monitored and recorded
- Establishment must have 24 hour contingency arrangements in place should there be an emergency situation that renders the premises unsuitable for storage, including instructions for contacting key personnel out of hours and assessing the impact of emergencies should they occur.

**Traceability**
- Records should detail the location of the materials including information about risk.

**Health and safety**
- Staff should have sufficient space to work, and access to appropriate protective clothing, materials and equipment to ensure safe working.
- Regular temperature monitoring or control, or ventilation must be considered, where appropriate.
- Environmental controls should be in place to avoid potential contamination

### 6.3. Subcontracting storage

In some cases it may be preferable to subcontract the storage of relevant material to another organisation. In this case the suitability of the 3rd party should be assessed before undertaking a contract (e.g. audit of facility, review of compliance). A formal agreement should be signed to formally confirm these storage agreements.

### 6.4. Appropriate storage period

In order to demonstrate respect for human tissue, and ensure the best use of any donated material, it is best practice to ensure that any tissue which is available for use in medical research is made available to the research community and access opportunities promoted.

In addition, the Human Tissue Authority recommends that institutions implement systems which state the frequency of review of collections and the criteria for disposal/further storage. These policies should take into account the duty to the donor to make good use of their samples.
7. SAMPLE USE

The use of human material is not covered by the Human Tissue Act regulations. As set out in section 0, appropriate approval must be obtained for the use of human samples.

It should be noted however, that human material collected with ethical approval from a recognised NHS REC is only exempt from requiring storage under the Human Tissue Act for the duration of the ethical approval.

When the ethical approval expires, researchers then has the following options:
- Apply via IRAS to extend the REC approval and continue the project
- Transfer the material to HTA licensed premises for storage in a research tissue bank.
- Dispose of the tissue (see section 8).

8. SAMPLE DISPOSAL

As the collection and use of human tissue is considered to be a precious gift, according to the underlying principles of The Act, to make the best use of samples, sample destruction should be avoided unless it is absolutely necessary – for example.

- If the integrity of the samples has been irretrievably compromised
- If the patient has withdrawn consent for use
- If the ethical approval or consent for a study dictates that samples must be destroyed at the end of a particular study.

However, where sample destruction is required, researchers must be aware of the ethical consideration, and associated requirements under the Human Tissue Act. Researchers should therefore consult the HTA Codes of Practice.

The key requirements of disposal are summarised below.

8.1. Key considerations in sample disposal

There are particular sensitivities relating to the use and disposal of tissue, therefore it is essential for researchers to recognise the nature of the material being handled, the sensitivity of the feelings of the donors and the bereaved. This may be particularly sensitive in some cases, for example following pregnancy loss.

In March 2015 the Human Tissue Authority issued additional guidance on the sensitive disposal of foetal remains following pregnancy loss or termination. Researchers disposing of this material must therefore consult the HTA website for further guidance on disposing of this
What does this mean for researchers?

- Where researchers are responsible for collecting human tissue, processes should be in place to inform individuals, or their relatives, how tissue will be disposed of after use. Staff should be prepared to discuss the issue of disposal, explaining the options available and who will be responsible for any associated costs.

- Staff should be appropriately trained, and be familiar with the establishment’s arrangements, including what is available locally, basic legal requirements and the options available to those wanting to make their own arrangements to dispose of tissue. Where appropriate, such information should be available in writing for people to take away with them. They may wish to discuss it with relatives or community members before making their choice.

- Staff should be sensitive to cultural/religious and language differences, whilst being aware that choices are for the individual or relative to make.

- Prior to disposal, donor consent and any decisions made by an Ethics Committee regarding disposal should be examined to determine the donor wishes.

8.2. Disposal options

Depending on whether the tissue is from the deceased or the living, a number of different disposal options are available, which must be carefully selected. These are summarised in Figure 10, below.

There is also a set of frequently asked questions covering the more practical aspects of adhering to this guidance: [https://www.hta.gov.uk/faqs/disposal-pregnancy-remains-faqs](https://www.hta.gov.uk/faqs/disposal-pregnancy-remains-faqs)
In general, the disposal of any tissue should be handled in accordance with any reasonable wishes expressed by the donor or their relatives, as long as the method of disposal is legal. Whichever method of sample disposal is utilised, appropriate documentation of the disposal route must be maintained.

8.3. Maintaining proper documentation

In accordance with the Human Tissue Act's requirements for sample tracking (see section 5) establishments must ensure that they have systems in place to maintain proper records and documentation for all tissue they acquire or pass on to others. This includes at minimum:

- The date/time of disposal
- The method of disposal (route used & place)
- Reason for disposal

This information should be recorded in the tissue tracking database used within each department, in accordance with local policies/procedures and these records must be made available to auditors on request to demonstrate sample traceability throughout its full lifecycle. Decisions regarding the retention period for this documentation will be made at a department level in line with the establishments documented policy.
8.4. Preventing unnecessary waste of human tissue

To avoid any unnecessary destruction of human tissue, which may have otherwise been kept for use in valuable research, generic consent for research should be sought where ever possible (see section 4). The provision of generic consent ensures that tissues can be retained for further use, hence promoting the most effective use of the tissue. However, requests for generic consent must be treated on a case-by-case basis, and handled sensitively by the requestor.
9. QUALITY MANAGEMENT AND AUDIT

In accordance with the Human Tissue Act licensing standards, there must be a system of governance and quality systems, which includes:

- Documented policies and procedures as part of the overall governance process
- A documented system of audit
- The requirement to ensure that staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills
- A systematic and planned approach to the management of records
- Systems to ensure that all adverse events are investigated promptly
- Risk assessments of the establishment’s practices and processes, which are completed regularly, recorded and monitored

The details of the Human Tissue Authority Licensing standards are provided in Appendix 1. Details of how Newcastle University abides by these standards is found in the Quality Manual.
# 10. APPENDICES

## 10.1. Appendix A – HTA Licensing Standards and Guidance for the Research Sector

<table>
<thead>
<tr>
<th>Consent Standards</th>
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<tbody>
<tr>
<td><strong>C1</strong></td>
</tr>
<tr>
<td>a)</td>
</tr>
<tr>
<td>b)</td>
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<tr>
<td>c)</td>
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<td>d)</td>
</tr>
<tr>
<td>e)</td>
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<td>f)</td>
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</tbody>
</table>

**General guidance:**

*Consent is the fundamental principle of the Human Tissue Act (2004) and the HTA Codes of Practice A (Guiding principles and fundamental principles of consent) and E (Research) are the primary sources of guidance for compliance with this standard. For health related research in general i.e. not limited to that involving human tissue, the Health Research Authority (HRA) provides resources such as template consent forms and participant information sheets.*

<table>
<thead>
<tr>
<th>Staff involved in seeking consent receive training and support in the essential requirements of taking consent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
</tr>
<tr>
<td>b)</td>
</tr>
<tr>
<td>c)</td>
</tr>
</tbody>
</table>
### General guidance

It is important that consent training is not considered a one-off event and that proficiency in seeking consent is upheld. There is no set requirement for the frequency of consent training.

Individuals taking consent are expected to maintain awareness of current standards through reference to published guidance and relevant policies. Training may need to be updated when legislation has changed, new policies or practices have been implemented, different research activities are to be undertaken or a significant period of time has elapsed since research activities have been conducted.

### Governance and Quality Systems Standards

#### GQ1

All aspects of the establishments work are governed by documented policies and procedures as part of the overall governance process.

| a) Ratified, documented and up-to-date policies and procedures are in place, covering all licensable activities |

**Guidance**

At a minimum, it is expected that most establishments will have standard operating procedures (SOPs) covering the following activities:

- consent;
- collection;
- receipt;
- labelling;
- specimen preparation / preservation;
- storage;
- relevant transport arrangements;
- cleaning and decontamination;
- disposal.

More complex establishments, especially those releasing material, may need to cover more areas in their suite of documents.

A standard operating procedure (SOP) should be a clear and accurate representation of an existing procedure or process, preferably set out in the format of a stepwise guide. SOPs should be understandable to enable new staff to follow a procedure from beginning to end. They should be detailed enough to ensure
### HTA LICENSING STANDARDS – RESEARCH SECTOR

| uniformity between staff in the performance of a specific function and should be followed to the letter by all staff who have been appropriately trained. |
| People undertaking the processes should be involved in developing the SOPs to ensure that the written procedures reflect actual practices. Regular review of SOPs will help to prevent incremental departure from written processes with the passing of time and allow establishments to identify improvements. Establishments should introduce a system to record that staff have read and understood SOPs. |
| If human tissue is to be transferred between establishments, consideration must be given to minimise the likelihood of theft, damage or loss during transport. |
| Some form of formal transfer arrangement, for example, as part of a Material Transfer Agreement (MTA), should define how the human tissue is preserved, any potential contamination risks associated with it; and who is responsible for disposal, if applicable. We do not specify or endorse any particular format for MTAs; a number of template agreements are publicly available and can be adapted to suit individual circumstances. Transportation procedures should also give sufficient detail to ensure the integrity of the tissue. |

b) There is a document control system.

**Guidance**

- Governance documents should include:
- Revision history and version number
- ‘Effective from’ date
- Review date (at least every three years)
- Pagination
- Author and reviewer names

c) There are change control mechanisms for the implementation of new operational procedures.

**Guidance**

Change control mechanisms should take into account the risks of any planned changes, any validation required, any training required and how implemented changes will be reviewed.

d) Matters relating to HTA-licensed activities are discussed at regular governance meetings, involving establishment staff.

**Guidance**
## HTA LICENSING STANDARDS – RESEARCH SECTOR

All staff working under the HTA licence should be aware of the governance arrangements in place, and they should be represented at governance meetings.

Overall governance processes should be supported by regular meetings with staff at the establishment who are engaged in licensed activities. Formal meetings should be minuted and the actions should be noted and followed up.

Documented minutes of meetings should be distributed to all relevant staff to help to ensure that they are aware of all important information relating to licensed activities at the establishment. National and local information relevant to activities should also be disseminated.

e) There is a system for managing complaints.

**General guidance**

A formal quality management framework helps to establish minimum expectations for governance and quality systems, and facilitates continuous improvement. The work of the staff at the establishment must be subject to a system of governance. This means that there should be clear reporting lines and accountability (particularly with regard to individual staff and the DI), documented roles and responsibilities. Establishments are encouraged to have an over-arching quality document which provides an overview of the establishment’s main purpose, organisation and structure and approach to governance and quality. This document should be accessible to all staff involved in licensed activities.

The HTA recommends that establishments adopt a harmonised approach to sample management as there are risks of varying practices where samples being stored for REC-approved projects are managed differently to samples subject to HTA’s licensing standards.

### GQ2 There is a documented system of audit

a) There is a documented schedule of audits covering licensable activities

b) Audit findings include who is responsible for follow-up actions and the timeframes for completing these

**General guidance**

Audits will demonstrate compliance with our standards and demonstrate whether establishments are meeting the requirements of their own systems.

A documented schedule of audits should be in place at each establishment.
<table>
<thead>
<tr>
<th><strong>HTA LICENSING STANDARDS – RESEARCH SECTOR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical audits of records and specimens will allow the establishment to assure itself that specimens and records are fully traceable from consent to disposal.</td>
</tr>
<tr>
<td>Records, including records of consent, should be audited regularly to ensure completeness, accuracy and legibility.</td>
</tr>
<tr>
<td>Audits should ideally include horizontal audits by staff involved in the processes, to ensure that SOPs accurately reflect actual practices and to identify areas for improvement. All audit findings and related corrective and preventative actions should be recorded to allow the establishment to demonstrate compliance with HTA standards and follow-up outstanding actions.</td>
</tr>
<tr>
<td>Audit processes can benefit from being undertaken by a person who is not normally involved in the activity at the establishment: a ‘fresh eyes’ view. Internal auditors should not be involved in auditing their own work.</td>
</tr>
<tr>
<td>Some establishments may be able to make use of existing in-house expertise or services.</td>
</tr>
</tbody>
</table>

**GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills**

- a) Qualifications of staff and all training are recorded, records showing attendance at training.
- b) There are documented induction training programmes for new staff.
- c) Training provisions include those for visiting staff.
- d) Staff have appraisals and personal development plans.

**General guidance**

*Training and induction packages help to ensure that staff are fully trained on all policies and procedures relevant to their work. Establishments should ensure that training and development plans are in place and that these are reviewed periodically.*

*Staff should be encouraged to attend professional meetings and training events to ensure that they keep abreast of good practices in their areas of expertise.*

**GQ4 There is a systematic and planned approach to the management of records**
**HTA LICENSING STANDARDS – RESEARCH SECTOR**

<p>| | |</p>
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</table>
| a) | There are suitable systems for the creation, review, amendment, retention and destruction of records.  
*Guidance*  
Documented records are used by establishments to evidence traceability and ensure a robust audit trail. In this context, traceability refers to the completeness of auditable information about every step in the pathway for the use of relevant material, from consent through to disposal, or the material has been used up entirely.  
Documented procedures for the creation, review, amendment, retention and destruction of records are required to help to ensure that records are maintained appropriately. SOPs should detail the frequency of document review required to ensure that documents are regularly reviewed and updated as necessary. |
| b) | There are provisions for back-up / recovery in the event of loss of records.  
*Guidance*  
Records may be in various formats, including paper based, electronic, or stored on recordable media. A centralised system for the storage of records can help to ensure that records are regularly backed-up. |
| c) | Systems ensure data protection, confidentiality and public disclosure (whistleblowing).  
*Guidance*  
Consideration must be given to other relevant legislation, including compliance with the Data Protection regulations where tissue has been taken from the living, and compliance with professional guidelines where applicable |
| **GQ5** | **There are systems to ensure that all adverse events are investigated promptly** |
| a) | Staff are instructed in how to use incident reporting systems  
*General guidance*  
All establishments licensed by the HTA are required to have an internal system for reporting adverse events and, where necessary, instigating an investigation or root cause analysis. |
| b) | Effective corrective and preventive actions are taken where necessary and improvements in practice are made.  
*General guidance*  
All establishments licensed by the HTA are required to have an internal system for reporting adverse events and, where necessary, instigating an investigation or root cause analysis. |
**HTA LICENSING STANDARDS – RESEARCH SECTOR**

Clearly assigning responsibilities for incident management is important. As the DI is responsible for licensed activities at the establishment, there should be a process in place to allow them to be made aware of adverse events so that proper investigation and reporting can take place. There should be an adverse incident SOP detailing how adverse incidents are logged, reported, addressed and monitored.

Although there is currently no requirement for establishments in the research sector to report adverse incidents to the HTA, if a DI has concerns about an adverse event, they are encouraged to contact us for further advice.

Relevant examples of adverse events include:

- specimen loss;
- missing or incorrect documentation;
- security breach;
- abnormalities in storage temperature readings;
- inappropriate disposal.

<table>
<thead>
<tr>
<th>GQ6</th>
<th>Risk assessments of the establishment’s practices and processes are completed regularly, recorded and monitored</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) There are documented risk assessments for all practices and processes requiring compliance with the HT Act and the HTA’s Codes of Practice. Guidance</td>
</tr>
<tr>
<td></td>
<td>All establishments should identify the risks inherent in the key activities, and procedures should be developed in consideration of and to mitigate these potential risks where appropriate. Establishments may tend to focus risk assessments on health and safety issues which, in themselves, are not sufficient to meet our standards. DIs should also assess the risks associated with licensed activities. Documented risk assessments should include an evaluation of the level of the risk and, where appropriate, the mitigating actions identified and the level of residual risk remaining.</td>
</tr>
<tr>
<td></td>
<td>Risk assessments should include the risks relating to the premises, practices and procedures connected with licensed activities, including:</td>
</tr>
<tr>
<td></td>
<td>- receiving and/or storing specimens without appropriate consent</td>
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<td></td>
<td>- documentation;</td>
</tr>
<tr>
<td></td>
<td>- storing or using human tissue after consent withdrawal;</td>
</tr>
<tr>
<td></td>
<td>- storage failure or other damage affecting human tissue quality for useful research;</td>
</tr>
</tbody>
</table>
### HTA LICENSING STANDARDS – RESEARCH SECTOR

- loss of human tissue;
- sample mix-up or loss of traceability;
- transport of specimens to and from the establishment;
- security arrangements;
- incorrect disposal.

b) Risk assessments are reviewed regularly.

**Guidance**

Risk assessments should be reviewed periodically (typically, every 1-3 years) and the actions to mitigate risks updated as necessary. Risk assessments should also be reviewed following an incident.

c) Staff can access risk assessments and are made aware of risks during training.

**Guidance**

By documenting risk assessments, staff are made aware of identified risks, which helps to prevent risks materialising and informs the development of procedures and relevant documentation.

### Traceability

<table>
<thead>
<tr>
<th><strong>T1</strong></th>
<th>A coding and records system facilitates the traceability of bodies and human tissue, ensuring a robust audit trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>There is an identification system which assigns a unique code to each donation and to each of the products associated with it.</td>
</tr>
<tr>
<td>b)</td>
<td>A register of donated material, and the associated products where relevant, is maintained.</td>
</tr>
<tr>
<td>c)</td>
<td>An audit trail is maintained, which includes details of: when and where the bodies or tissue were acquired and received; the consent obtained; all sample storage locations; the uses to which any material was put; when and where the material was transferred, and to whom.</td>
</tr>
<tr>
<td>d)</td>
<td>A system is in place to ensure that traceability of relevant material is maintained during transport.</td>
</tr>
<tr>
<td>e)</td>
<td>Records of transportation and delivery are kept.</td>
</tr>
<tr>
<td>f)</td>
<td>Records of any agreements with courier or transport companies are kept.</td>
</tr>
<tr>
<td>g)</td>
<td>Records of any agreements with recipients of relevant material are kept.</td>
</tr>
</tbody>
</table>
## HTA LICENSING STANDARDS – RESEARCH SECTOR

**General guidance**

Where relevant, through their coding and records systems, HTA-licensed establishments should be able to demonstrate their awareness and ability to track ethical approval expiry dates and any relevant conditional agreements, such as consent opt-outs.

### T2 Bodies and human tissue are disposed of in an appropriate manner

1. Disposal is carried out in accordance with the HTA’s Codes of Practice.
2. The date, reason for disposal and the method used are documented.

**General guidance**

Establishments should carefully document disposal. Supporting procedures should detail the requirements for recording the details of disposal, including the date, reason and method. Records of disposal should be kept in order to provide a complete audit trail from donation through to disposal.

### Premises, facilities and equipment standards

**PFE1 The premises are secure and fit for purpose**

1. An assessment of the premises has been carried out to ensure that they are appropriate for the purpose.

**Guidance**

The establishment must be clean, well maintained and subject to a programme of planned preventative maintenance. Suitable environmental controls should be in place to avoid potential contamination.

Establishments should periodically review risk assessments of premises, facilities and equipment. This should ideally include an audit of the premises and equipment in order to identify areas requiring rolling maintenance, refurbishment or upgrade. This will help to ensure that remedial actions are implemented in a timely manner so that the premises, facilities and equipment remain fit for purpose.

2. Arrangements are in place to ensure that the premises are secure and confidentiality is maintained

**Guidance**
### Security measures include the use of locks, alarm systems and protections against unauthorised access.

Establishments are expected to have policies in place to review and maintain the safety of staff, visitors and other relevant people e.g. students or donors.

c) There are documented cleaning and decontamination procedures

**Guidance**

Documented cleaning and decontamination procedures should be supported by schedules.

### There are appropriate facilities for the storage of bodies and human tissue

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>a)</td>
<td>There is sufficient storage capacity.</td>
</tr>
<tr>
<td>b)</td>
<td>Where relevant, storage arrangements ensure the dignity of the deceased.</td>
</tr>
<tr>
<td>c)</td>
<td>Storage conditions are monitored, recorded and acted on when required.</td>
</tr>
</tbody>
</table>

**Guidance**

Documented temperature monitoring allows establishments to easily visualise and identify when temperatures are out-of-range. It can also demonstrate temperature trends, to identify when storage conditions may be deteriorating and to alert staff to developing equipment failure. Temperature alarms should be regularly tested and manually challenged periodically to ensure that they are operating as expected.

Signs should be added to freezers to define alarm set points for the temperature ranges so that staff are visually reminded of minimum and maximum temperatures.

Where storage is critical, an appropriate remote temperature monitoring alarm and callout system may be required.

Checks and filling of liquid nitrogen dewars should be documented. Where material can be stored at ambient/room temperature, this does not mean that storage conditions do not need to be monitored.

d) There are documented contingency plans in place in case of failure in storage area.

**Guidance**

The establishment must have contingency arrangements in place should there be an emergency situation that renders the premises unusable for the storage of human tissue; this may need to be through a formalised arrangement with another HTA-licensed establishment for transfer of material.
**HTA LICENSING STANDARDS – RESEARCH SECTOR**

<table>
<thead>
<tr>
<th><strong>General guidance</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas used for storage of human tissue for use in research must provide an environment that is safe for those working under the licence and preserves the integrity of the tissue.</td>
</tr>
<tr>
<td>Refrigerators, freezers and other vessels which contain human tissue should be appropriately labelled so that staff are aware of the necessity to maintain the quality, safety and security of such material and prevent mix-ups with other tissues.</td>
</tr>
<tr>
<td>Human tissue must be stored in such a way that it minimises the risk of contamination to those working under the licence. If necessary, the DI should work with health and safety personnel to implement environmental controls and appropriate equipment to reduce the risk of contamination.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PFE3</strong></th>
<th>Equipment is appropriate for use, maintained, validated and where appropriate monitored</th>
</tr>
</thead>
</table>
| a)      | Equipment is subject to recommended calibration, validation, maintenance, monitoring, and records are kept.  
*Guidance*  
**Equipment must be regularly maintained to ensure that it is suitable for use.**  
**Equipment should be made of material that is easy to clean, impervious, nonrusting, non-decaying and non-staining.** |
| b)      | Users have access to instructions for equipment and are aware of how to report an equipment problem.  
*Guidance*  
**There should be a system for renewing items that are no longer suitable through wear and tear.** |
| c)      | Staff are provided with suitable personal protective equipment.  
*Guidance*  
**Staff must have access to the protective clothing, materials and equipment they need.** |