Site visit inspection report on compliance with HTA minimum standards

Middlesex University

HTA licensing number 12533

Licensed under the Human Tissue Act 2004 for the

- **storage of relevant material which has come from a human body for use for a scheduled purpose**

5 June 2013

Summary of inspection findings

The HTA found the Designated Individual, the Licence Holder, the premises and the practices to be suitable in accordance with the requirements of the legislation.

Although Middlesex University (the establishment) met several of the HTA standards, eight minor shortfalls were found with regard to the Consent (C), Governance and Quality Systems (GQS), and Disposal (D) standards. The shortfalls were in relation to standard operating procedures, governance meetings, a quality management system, audit, records and traceability, risk assessments and disposal of tissue. Advice has also been given relating to the C, GQS, PFE and D standards.

Particular examples of good practice are included in the concluding comments section of the report.

The HTA's regulatory requirements

The HTA must assure itself that the Designated Individual, Licence Holder, premises and practices are suitable.

The statutory duties of the Designated Individual are set down in Section 18 of the Human Tissue Act 2004. They are to secure that:

- the other persons to whom the licence applies are suitable persons to participate in the carrying-on of the licensed activity;
- suitable practices are used in the course of carrying on that activity; and
- the conditions of the licence are complied with.

The HTA developed its licensing standards with input from its stakeholders. They are designed to ensure the safe and ethical use of human tissue and the dignified and respectful treatment of the deceased. The HTA inspects the establishments it licences against four groups of standards:

- consent
- governance and quality systems
- premises facilities and equipment
- disposal.

This is an exception-based report: only those standards that have been assessed as not met are included. Where the HTA determines that a standard is not met, the level of the shortfall is classified as 'Critical', 'Major' or 'Minor' (see Appendix 2: Classification of the level of shortfall). Where HTA standards are fully met, but the HTA has identified an area of practice that could be further improved, advice is given to the DI.

Reports of HTA inspections carried out from 1 November 2010 are published on the HTA's website.

Background to the establishment and description of inspection activities undertaken

This report refers to the activities carried out by Middlesex University (the establishment). This was the first site visit inspection of the establishment since it was issued an HTA licence in January 2009. It was a routine site visit inspection to assess whether the establishment is meeting the HTA's standards.

Relevant material is stored for the scheduled purposes of 'Research in connection with disorders, or the functioning, of the human body' ('research') and 'Education or training in relation to human health' ('teaching'). There is a central storage facility containing tissue collections from the School of Science and Technology (stored for research and education) and the London Sports Institute (research). In total, the establishment stores approximately 4500 samples for these two scheduled purposes; 4300 samples are for research and 200 samples are for education. The tissue collections are stored under secure conditions.

All research samples are from living donors. They include frozen samples (placental biopsies, saliva, urine and whole blood samples) stored in -20°C and -80°C freezers, formalin fixed, paraffin wax-embedded tissue blocks (prostate, placental, breast, bladder and endometrial biopsies) and tissue sections on slides (placental and prostate samples and breast tumour biopsies). Approximately 10% (460) of the research samples are under current NHS

Research Ethics Committee (REC) approval. These are samples procured at local Trusts and transported to the establishment (*see Advice item 1*). While the approval applies, storage of these samples is exempt from HTA licensing. Some of the remaining samples are under Middlesex University Natural Science Ethics Committee approval; these are samples which have either been obtained on site or have been imported from overseas sources – Sudan, Saudi Arabia, Nigeria, Iraq and Austria. Storage of these samples falls under the HTA licence. A further set of samples was originally stored under NHS REC approval and this has now expired. Storage of these samples falls under the HTA licence.

Teaching samples are from both living and deceased donors. They include formalin fixed, paraffin wax-embedded blocks (spleen, skin) and slides of assorted tissue. These samples are stored at ambient temperature. Storage of the samples from deceased donors falls under the HTA licence.

The establishment does not currently distribute or export samples (*see Advice item 1*).

The site visit inspection included a visual inspection of the laboratories and tissue storage facilities. Interviews were conducted with: the Designated Individual; the Corporate Licence Holder contact; and Persons Designated (Professor of Biomodelling and Informatics, Reader in Biomedical Diagnostics, Senior Lecturer and Senior Lecturer in Clinical Biochemistry and Cell Biology). A documentation review and audit trail were carried out. Details of the audit are provided below; some anomalies were found.

For the horizontal audit, four samples were selected from the -20°C and -80°C freezers and were compared to the records in the Tissue Register; two samples in a -80°C freezer could not be found in the Register. Four blocks were chosen from the block cabinet; two samples could not be found in the Register (see standard GQ6, below). For the vertical audit, four samples were tracked from consent to receipt, storage and use; no anomalies were found.

Inspection findings

The HTA found the Designated Individual and the Licence Holder to be suitable in accordance with the requirements of the legislation.

Compliance with HTA standards

Consent

Standard	Inspection findings	Level of shortfall
C1 Consent is obtained in accordance with the requirements of the Human Tissue Act 2004 (HT Act) and as set out in the Code of Practice.	There are guidance documents and detailed training for the consenting process but formal procedures are underdeveloped. *See Advice item 2*.	**Minor**

Governance and Quality

Standard	Inspection findings	Level of shortfall
GQ1 All aspects of the establishment's work are supported by ratified documented policies and procedures as part of the overall governance process.	Some procedures are documented but many need to be developed. *See Advice item 4*. There is no existing regular governance meeting, which covers HTA issues, for staff working under the licence. *See Advice item 5*.	**Minor** **Minor**
GQ2 There is a documented system of quality management and audit.	Although there are elements in place, the quality management system (QMS) would benefit from further development. *See Advice item 6*. An audit schedule needs to be created and implemented. *See Advice item 7*.	**Minor** **Minor**
GQ6 A coding and records system facilitates traceability of bodies, body parts, tissues and cells, ensuring a robust audit trail.	The horizontal audits identified a number of anomalies. The sample numbering system allows for duplication of sample identifiers. *See Advice item 9*.	**Minor**
GQ8 Risk assessments of the establishment's practices and processes are completed regularly and are recorded and monitored appropriately.	The freezer storage facilities have not been fully risk assessed. *See Advice item 11*.	**Minor**

Disposal

Standard	Inspection findings	Level of shortfall
D1 There is a clear and sensitive policy for disposing of human body parts and tissue.	Although the establishment has not yet disposed of any relevant material, provisions should be made for situations when this may occur. *See Advice item 13*.	**Minor**

Advice

The HTA advises the DI to consider the following to further improve practices:

No.	Standard	Advice
1.	Principally GQ5 but also relevant to standard PFE4	The DI is advised to ensure that, when tissue is being transferred between establishments (either incoming or outgoing), consideration must be given to minimise the likelihood of theft, damage or loss during transport. Some type of formal 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; HTA's Code of Practice 9: Research (paragraph 112). Where material has been procured off site, the agreement should also stipulate that appropriate consent has been obtained.
2.	Principally C1 but also relevant to standard C3	The DI is advised to formalise the University consenting processes through the creation of Standard Operating Procedures (SOPs) and to keep records of those who have completed consent training.
3.	C1	The DI may wish to consider modifying the University consent form to include generic consent for future use of tissue.
4.	Principally GQ1 but also relevant to standard PFE2	SOPs should cover the following areas: • sample receipt. • sample handling. • sample storage. • cleaning of storage areas and decontamination of freezers. • equipment failure. The DI is advised to consider the inclusion of the following features to each document to create a robust system: • document control information, such as a revision history and version number. • review date (at least every two years). • issue date. • pagination. • the names of both the author and the reviewer who has authorised the content of the document (the reviewer should have knowledge of the relevant procedure/process but need not be more senior than the author). The DI is advised to ensure that all staff working under the licence have read the SOPs and that this is recorded.
5.	GQ1	In other establishments, regular governance meetings have covered items such as: reportable incidents, changes to SOPs, audits, risk assessments,

		HTA training, the setting up of agreements and updates from the HTA (e.g. e-newsletter items).
6.	GQ2	The DI is advised to consider further developing the QMS and Quality Manual using the following sections: • organisational/staffing structure. • guidelines from professional/regulatory bodies. • standard operating procedures. • risk assessments. • record of governance meetings. • tissue records. • audit programme. • control of documents. • reference to training and appraisal processes. • non-conformances and incident monitoring.
7.	Principally GQ2 but also relevant to standard GQ4	The DI is advised to divide the audit schedule into small increments, carried out by different team members. This should include horizontal audits to ensure that SOPs accurately reflect current practices and vertical tissue traceability audits, from records of receipt to storage, use or disposal. The DI may also wish to consider implementing a regular audit against HTA standards. The results of audit findings, and actions taken, should be formally recorded.
8.	GQ3	The DI may wish to consider including the following as part of a training programme: • Competence training against specific SOPs. • Use of the MRC 'Research and Human Tissue Legislation e-learning Module', part of the MRC Data and Tissues Toolkit (both of which were developed with input from the HTA): http://www.rsclearn.mrc.ac.uk/
9.	Principally GQ6 but also relevant to standard GQ4	The DI should update the Tissue Register to include the following information: • details of tissue slides stored. • details of consent obtained and ethical approval for each sample (where appropriate). • details of sample receipt, use and disposal (where appropriate). The DI should consider using a unique ID for each sample.
10.	GQ7	The University has a detailed Health and Safety incident reporting structure. The DI is advised to implement a local reporting system for

		incidents and non-conformances, and to detail any actions taken. Examples of such incidents and non-conformances could include: freezer malfunction; receipt of broken packages; samples with incomplete consent paperwork; and samples lost during transit.
11.	Principally GQ8 but also relevant to standards PFE3 and PFE5	The DI is should carry out a fully documented risk assessment of the freezer storage area in the event of freezer or storage area malfunction. The risk assessment should be made available to all staff working with human tissue and should be reviewed on an annual basis. The risk assessment should take into account the following observations made by the inspection team: • there is no temperature monitoring of the freezers. • freezers are not backed up (for example, using liquid carbon dioxide tanks). • the freezer alarm trigger points are not documented and alarms are not routinely tested. • although there is a contingency freezer within the storage area the DI has not identified a contingency freezer outside the storage area.
12.	PFE5	Some equipment (e.g. pressure vessels, centrifuges) is covered by routine maintenance visits. The DI is advised to extend these to cover fridges and freezers.
13.	Principally D1 but also relevant to standard D2	The DI needs to develop a disposal policy and relevant procedures, which should: • comply with Health and Safety recommendations. • ensure that the disposal date, method and reason are recorded. • ensure that, for samples from deceased donors, the HTA Code of Practice 5: Disposal of Human Tissue (paragraphs 35 and 67) is followed: 'Where practical, human tissue from the deceased should be bagged separately from clinical waste, but disposed of within the same incinerator. It is not necessary for each tissue sample to be disposed of individually'.

Concluding comments

During the site visit inspection of Middlesex University, several areas of good practice were noted:

- There is a good guidance document for the consent process.
- The DI has introduced measures to ensure that all imported samples for research arrive with ethical approval from the country of origin.

- Consent training includes a set of modules on the ethical and legal aspects of the consent process.

Eight minor shortfalls were identified as a result of the site visit inspection. In addition, the HTA has given advice to the Designated Individual in several areas, including consent, governance and quality systems, premises facilities and equipment and disposal.

The HTA requires that the Designated Individual addresses the shortfalls by submitting a completed corrective and preventative action (CAPA) plan within 14 days of receipt of the final report (refer to Appendix 2 for recommended timeframes within which to complete actions). The HTA will then inform the establishment of the evidence required to demonstrate that the actions agreed in the plan have been completed.

The HTA has assessed the establishment as suitable to be licensed for the activity specified subject to corrective and preventative actions being implemented to meet the shortfalls identified during the inspection.

Report sent to DI for factual accuracy: 3 July 2013

Report returned from DI: 15 July 2013

Final report issued: 17 July 2013

Completion of corrective and preventative actions (CAPA) plan

Based on information provided, the HTA is satisfied that the establishment has completed the agreed actions in the CAPA plan and in doing so has taken sufficient action to correct all shortfalls addressed in the Inspection Report.

Date: 13 April 2017

Appendix 1: HTA standards

The HTA standards applicable to this establishment are shown below; those not assessed during the inspection are shown in grey text. Individual standards which are not applicable to this establishment have been excluded.

Consent standards
C1 Consent is obtained in accordance with the requirements of the Human Tissue Act 2004 (HT Act) and as set out in the code of practice
• Consent forms comply with the HTA's Code of Practice • Consent forms are in records and are made accessible to those using or releasing relevant material for a scheduled purpose • If the establishment obtains consent, a process is in place for acquiring consent in accordance with the requirements of the HT Act 2004 and the HTA's Codes of Practice • Where applicable, there are agreements with third parties to ensure that consent is obtained in accordance with the requirements of the HT Act 2004 and the HTA's Codes of Practice • Consent procedures have been ethically approved
C2 Information about the consent process is provided and in a variety of formats
• Standard operating procedures (SOPs) detail the procedure for providing information on consent • Agreements with third parties contain appropriate information • Independent interpreters are available when appropriate • Information is available in suitable formats, appropriate to the situation • Consent procedures have been ethically approved
C3 Staff involved in seeking consent receive training and support in the implications and essential requirements of taking consent
• Standard operating procedures (SOPs) detail the consent process • Evidence of suitable training of staff involved in seeking consent • Records demonstrate up-to-date staff training • Competency is assessed and maintained

Governance and quality system standards
GQ1 All aspects of the establishments work are supported by ratified documented policies and procedures as part of the overall governance process
• Policies and procedures are in place, covering all activities related to the storage of relevant material for research in connection with disorders, or the functioning, of the human body • Appropriate risk management systems are in place • Regular governance meetings are held; for example, health and safety and risk management

committees, agendas and minutes

- Complaints system

GQ2 There is a documented system of quality management and audit

- A document control system, covering all documented policies and standard operating procedures (SOPs).
- Schedule of audits
- Change control mechanisms for the implementation of new operational procedures

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

- Qualifications of staff and training are recorded, records showing attendance at training
- Orientation and induction programmes
- Documented training programme, (e.g. health and safety, fire, risk management, infection control), including developmental training
- Training and reference manuals
- Staff appraisal / review records and personal development plans are in place

GQ4 There is a systematic and planned approach to the management of records

- Documented procedures for the creation, amendment, retention and destruction of records
- Regular audit of record content to check for completeness, legibility and accuracy
- Back-up / recovery facility in the event of loss of records
- Systems ensure data protection, confidentiality and public disclosure (whistle-blowing)

GQ6 A coding and records system facilitates traceability of bodies, body parts, tissues and cells, ensuring a robust audit trail

- There is an identification system which assigns a unique code to each donation and to each of the products associated with it
- An audit trail is maintained, which includes details of when and where the relevant material was acquired, the consent obtained, the uses to which the material was put, when the material was transferred and to whom

GQ7 There are systems to ensure that all adverse events are investigated promptly

- Corrective and preventive actions are taken where necessary and improvements in practice are made
- System to receive and distribute national and local information (e.g. HTA communications)

GQ8 Risk assessments of the establishment's practices and processes are completed regularly and are recorded and monitored appropriately

- Documented risk assessments for all practices and processes
- Risk assessments are reviewed when appropriate
- Staff can access risk assessments and are made aware of local hazards at training

Premises, facilities and equipment standards

PFE1 The premises are fit for purpose

- A risk assessment has been carried out of the premises to ensure that they are appropriate for the purpose
- Policies in place to review and maintain the safety of staff, authorised visitors and students
- The premises have sufficient space for procedures to be carried out safely and efficiently
- Policies are in place to ensure that the premises are secure and confidentiality is maintained

PFE 2 Environmental controls are in place to avoid potential contamination

- Documented cleaning and decontamination procedures
- Staff are provided with appropriate protective equipment and facilities that minimise risks from contamination
- Appropriate health and safety controls are in place

PFE3 There are appropriate facilities for the storage of bodies, body parts, tissues and cells, consumables and records.

- Relevant material, consumables and records are stored in suitable secure environments and precautions are taken to minimise risk of damage, theft or contamination
- Contingency plans are in place in case of failure in storage area
- Critical storage conditions are monitored and recorded
- System to deal with emergencies on 24 hour basis
- Records indicating where the material is stored in the premises

PFE5 Equipment is appropriate for use, maintained, quality assured, validated and where appropriate monitored

- Records of calibration, validation and maintenance, including any agreements with maintenance companies
- Users have access to instructions for equipment and receive training in use and maintenance where appropriate
- Staff aware of how to report an equipment problem
- Contingency plan for equipment failure

Disposal Standards
D1 There is a clear and sensitive policy for disposing of human organs and tissue
• Documented disposal policy • Policy is made available to the public • Compliance with health and safety recommendations
D2 The reason for disposal and the methods used are carefully documented
• Standard operating procedures (SOPs) for tracking the disposal of relevant material detail the method and reason for disposal • Where applicable, disposal arrangements reflect specified wishes

Appendix 2: Classification of the level of shortfall

Where the HTA determines that a licensing standard is not met, the improvements required will be stated and the level of the shortfall will be classified as 'Critical', 'Major' or 'Minor'. Where the HTA is not presented with evidence that an establishment meets the requirements of an expected standard, it works on the premise that a lack of evidence indicates a shortfall.

The action an establishment will be required to make following the identification of a shortfall is based on the HTA's assessment of risk of harm and/or a breach of the HT Act or associated Directions.

1. **Critical shortfall:**

   A shortfall which poses a significant risk to human safety and/or dignity or is a breach of the Human Tissue Act 2004 (HT Act) or associated Directions

   or

   A combination of several major shortfalls, none of which is critical on its own, but which together could constitute a critical shortfall and should be explained and reported as such.

   A critical shortfall may result in one or more of the following:

   (1) A notice of proposal being issued to revoke the licence

   (2) Some or all of the licensable activity at the establishment ceasing with immediate effect until a corrective action plan is developed, agreed by the HTA and implemented.

   (3) A notice of suspension of licensable activities

   (4) Additional conditions being proposed

   (5) Directions being issued requiring specific action to be taken straightaway

2. **Major shortfall:**

   A non-critical shortfall that:

- poses a risk to human safety and/or dignity, or
- indicates a failure to carry out satisfactory procedures, or
- indicates a breach of the relevant CoPs, the HT Act and other relevant professional and statutory guidelines, or
- has the potential to become a critical shortfall unless addressed

or

A combination of several minor shortfalls, none of which is major on its own, but which, together, could constitute a major shortfall and should be explained and reported as such.

In response to a major shortfall, an establishment is expected to implement corrective and preventative actions within 1-2 months of the issue of the final inspection report. Major shortfalls pose a higher level of risk and therefore a shorter deadline is given, compared to minor shortfalls, to ensure the level of risk is reduced in an appropriate timeframe.

3. **Minor shortfall:**

A shortfall which cannot be classified as either critical or major, but which indicates a departure from expected standards.

This category of shortfall requires the development of a corrective action plan, the results of which will usually be assessed by the HTA either by desk based or site visit.

In response to a minor shortfall, an establishment is expected to implement corrective and preventative actions within 3-4 months of the issue of the final inspection report.

Follow up actions

A template corrective and preventative action plan will be sent as a separate Word document with both the draft and final inspection report. You must complete this template and return it to the HTA within 14 days of the issue of the final report.

Based on the level of the shortfall, the HTA will consider the most suitable type of follow-up of the completion of the corrective and preventative action plan. This may include a combination of

- a follow-up site-visit inspection
- a request for information that shows completion of actions
- monitoring of the action plan completion
- follow up at next desk-based or site-visit inspection.

After an assessment of your proposed action plan you will be notified of the follow-up approach the HTA will take.