Site visit inspection report on compliance with HTA minimum standards

College of Medical and Dental Sciences

HTA licensing number 12358

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**

3 September 2015

Summary of inspection findings

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

Although the College of Medical and Dental Science was found to have met the majority of the HTA standards, minor shortfalls were found against standards GQ6 and D2. These were in relation to traceability and disposal records.

Particular examples of strengths and 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 licenses 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 describes the second site visit inspection of the College of Medical and Dental Sciences (the establishment) at the University of Birmingham. The establishment has been licensed by the HTA since October 2007 for storage of relevant material for use for scheduled purposes.

The premises hosts the Human Biomaterials Resource Centre (HBRC), an ethically approved research tissue bank (RTB), which is covered by the HTA licence. The HBRC is located in a purpose-built facility that also houses an Advanced Therapy Manufacturing Product (ATMP) facility. The ATMP facility is not, and does not need to be, covered by the HTA licence.

The HBRC RTB has received ethical approval from a NHS Research Ethics Committee (NHS REC) to collect, store and use human tissue samples for research. The REC approval includes generic ethical approval for projects receiving material from the tissue bank for research use. Human tissue is collected from NHS patients through collaboration with partner NHS Trusts. Surgical tissue is also collected from NHS participants and transported to the HBRC RTB with a consent form. There are occasions where surgical tissue arrives without the consent form and is stored in the HBRC RTB until confirmation of consent has been obtained (see *Advice*, item 3). Potential participants are identified during outpatient clinics by the clinical care team and researchers with NHS contracts. Staff seeking consent are

provided with consent training, a consent checklist, a participant information sheet and a consent form by the Person Designated (PD).

The establishment uses a bespoke electronic database for sample traceability that has been developed alongside the growing research activities of the HBRC. The sample database records the traceability of human tissue samples used in research. At the time of the inspection, the HBRC RTB had approximately 130,000 human samples registered on the electronic database, including relevant material and acellular material. The HBRC RTB technical staff are responsible for inputting information into the database and follow specific work instructions, known as 'Quality Control Documents' for each task. The database generates sequential unique identification numbers that are assigned to each of the samples (and sub-samples) which are created. The samples are linked-anonymised to each participant, which enables samples to be released in an anonymised form to researchers. The HBRC RTB consent forms are electronically stored and accessible on a secure network computer located in the HBRC. Consent forms are scanned into the patient's electronic patient records and hard copies are stored securely within the NHS in a locked filing cabinet.

Human tissue samples are released to researchers working at the University, and researchers external to the University, after the research project has been approved by the Access Review Panel. Researchers may also use human tissue samples from the HBRC RTB for research which does not fit within the broad terms of the ethical approval, in which case, researchers must apply for project specific ethical approval from a recognised REC. Researchers are required to sign a tissue transfer agreement outlining their responsibilities in relation to the human tissue samples prior to receiving the samples. Any residual tissue remaining after the research is complete must be returned to the HBRC to be stored under the licence or disposed of. Human tissue samples stored under NHS ethical approval are exempt from the HTA licensing requirements and were not included in the scope of this inspection.

The HBRC houses 13 -80°C freezers of which eight are used for human tissue sample storage. There are two dedicated freezers for contingency purposes. Human tissue samples are also stored in two liquid nitrogen tanks. All critical storage conditions are monitored during, and outside of, normal working hours, using a web-based system. An audible alarm will sound if the temperatures fall outside of normal parameters and, in turn, an auto-dial system is set up to notify staff if the alarm sounds. The alarm is not subject to regular testing; however, the PD is responsible for viewing the temperature graphs on a daily basis.

Both forward and reverse audits of five tissue samples stored in the HBRC were carried out. Human tissue samples were traced from a storage location to the electronic records and then from the electronic records to the storage location. No anomalies were found during the traceability audits and the electronic systems demonstrated consent was in place.

A further traceability audit on human tissue sample disposal was carried out. Five samples, that had been flagged as 'disposed' were selected at random. Three of the five samples had not actually been disposed of, but had been released for research use (Minor shortfall, D2).

Inspection findings

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

Compliance with HTA standards

Governance and Quality

Standard	Inspection findings	Level of shortfall
GQ6 A coding and records system facilitates traceability of bodies, body parts, tissues and cells, ensuring a robust audit trail.	The establishment stores a large number of human tissue samples under the HTA licence. Whilst the establishment has robust traceability systems in place, a small collection of anonymised human tissue blocks acquired from an NHS diagnostic archive were being stored in the HBRC without being recorded on the traceability database. These samples have been used as control samples for research.	**Minor**

Disposal

Standard	Inspection findings	Level of shortfall
D2 The reasons for disposal and the methods used are carefully documented.	A traceability audit of disposal of human tissue samples was undertaken of five samples that were recorded on the electronic database as having been disposed of. However, the establishment informed the inspection team that three of these five samples had not been disposed of but had been released from the RTB to researchers. This finding calls into question the reliability of the information entered onto the database.	**Minor**

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

No.	Standard	Advice
1.	C2	The DI is advised to update the SOP detailing the consent process to document current practice that where language interpreters are used, they must also sign the consent form.
2.	C3	The PD is involved in providing consent training to clinicians and researchers involved in participant recruitment for tissue banking. A log of those trained in seeking consent is maintained by the PD. The establishment is advised to include the details of staff job titles and the clinic they are associated with on this list. Furthermore the DI should consider providing refresher consent training to staff involved in seeking consent. As good practice, the DI is advised to consider providing consent training and refresher consent training to a wider audience, including university researchers involved in participant recruitment to ethically approved human tissue research projects taking place outside of the HBRC RTB. This is especially important as the RTB may accept human tissue holdings from research projects that are no longer covered under ethics approval. This will provide the DI with the assurance that consent for research has been sought by suitably trained staff.
3.	GQ1	Surgical tissue specimens are accepted into the HBRC with a consent form. However, there are occasions where the consent form is not received with the samples. These samples are highlighted on the HBRC database as 'pending consent' and are not released until the consent form has been located. Locating the consent form can take several months. The DI is advised to develop and implement a policy that states the timeframe in which consent forms must be located, in these cases, and that samples will be destroyed if that timeframe is exceeded. The DI is advised to ensure that the area of the freezer where the surgical samples 'pending consent' are stored are clearly flagged 'pending consent tissue' as opposed to 'pathology holding tray'. This will minimise the risk that these human tissue samples may be inadvertently released to researchers without confirmation that consent is in place.
4.	GQ2	A wide range of vertical audits are carried out by staff; however, to strengthen this area further, the DI is advised to consider also undertaking horizontal audits and reverse human tissue sample audits, as well as observational audits. Furthermore, audits should also focus on record completeness and accuracy, owing to the minor shortfall identified against standard D2.
	PFE3	All freezers and liquid nitrogen tanks are appropriately alarmed and have an auto-dial system to notify appropriate staff in the event of deviation of storage temperatures from the set acceptable ranges. There are appropriate contingency arrangements in place to deal with freezer failure. The DI is advised to consider: • reviewing temperature monitoring data to identify any trends in order to plan for servicing and maintenance prior to any major failures occurring. • incorporate manual testing of the alarm system to check that it is functioning as expected. • The establishment is advised to placing signs on the freezers that detail the alarm set points for the temperature ranges so that all staff that have access to the freezers are visually reminded of the minimum and

		maximum storage temperatures.

Concluding comments

The establishment has worked hard to ensure oversight of human tissue storage and use in the HBRC. There are appropriate governance structures and systems in place to ensure that the HBRC operates in accordance with regulatory requirements.

A number of examples of good practice were observed during the inspection. As the HBRC has evolved, the information technology used has also undergone development to suit the needs of the RTB. Particular attention has been given to ensure that any patient-sensitive information (for example, consent forms) is stored on a secure computer. A scoping exercise was carried out to find out about ethically approved research taking place outside of the HBRC. The aim of the exercise was to audit research groups to improve their practices and increase their awareness of regulatory requirements under the HT Act. Researchers are expected to sign a terms and conditions agreement so that they are aware of their responsibilities whilst the human tissue samples are being used in research.

There are a few areas of practice that require improvement, including two minor shortfalls in relation to standards GQ6 and D2. The HTA has given advice to the Designated Individual to make further improvements.

The HTA requires that the Designated Individual addresses the shortfall 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 activities specified subject to corrective and preventative actions being implemented to meet the shortfalls identified during the inspection.

Report sent to DI for factual accuracy: 30 September 2015

Report returned from DI: 14 October 2015 (with comments)

Final report issued: 14 October 2015

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: 4 January 2016

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)
GQ5 There are documented procedures for distribution of body parts, tissues or cells
• A process is in place to review the release of relevant material to other organisations

- An agreement is in place between the establishment and the organisation to whom relevant material is supplied regarding the tracking and use of material and eventual disposal or return

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

PFE 4 Systems are in place to protect the quality and integrity of bodies, body parts, tissues and cells during transport and delivery to a destination

- Documented policies and procedures for the appropriate transport of relevant material, including a risk assessment of transportation
- A system is in place to ensure that traceability of relevant material is maintained during transport
- Records of transportation and delivery
- Records are kept of any agreements with recipients of relevant material
- Records are kept of any agreements with courier or transport companies

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.