Site visit inspection report on compliance with HTA licensing standards

Swansea University

HTA licensing number 12651

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 and 4 September 2018

Summary of inspection findings

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

Although the HTA found that Swansea University had met the majority of the HTA's standards, four major and eleven minor shortfalls were found against the Consent, Governance and quality systems, Traceability and Premises, facilities and equipment standards.

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

The HTA's regulatory requirements

Prior to the grant of a licence, the HTA must assure itself that the Designated Individual is a suitable person to supervise the activity authorised by the licence and that the premises are suitable for the activity.

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.

Its programme of site visit inspections to assess compliance with HTA licensing standards is one of the assurance mechanisms used by the HTA.

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. They are grouped under four headings:

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

This is an exception-based report: only those standards that have been assessed as not met are included. Where the HTA determines that there has been a shortfall against a standard, 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 provided.

HTA inspection reports are published on the HTA's website.

Background to the establishment

Swansea University (the establishment) works in collaboration with the Abertawe Bro Morgannwg (ABM) University Health Board to facilitate research involving NHS patients. The two organisations have a joint committee that provides oversight for studies sponsored by either institution. The establishment consists of a hub (Swansea Univeristy) and two satellite sites (Singleton Hospital and Morriston Hospital) all of which are based in Swansea. The Singleton Hospital site is adjacent to the University and the Morriston Hospital site is based approximately 8 miles away.

Each of the sites has an assigned Person Designated (PD) under the licence who reports to the DI on matters relating to licensable activities. At the time of the inspection a number of human tissue samples were being stored as part of individual research projects that have recognised research ethics committee (REC) approval and are therefore excepted from the licensing requirements of the Human Tissue Act 2004 (HT Act). However, tissue collections associated with these research projects are subject to licensing by the HTA if they continue to be stored after the REC approval has expired. The Research Tissue Banks (RTBs), Swansea Neurology Biobank (SNB) and Pancreatic Cancer Research Funded Tissue Bank (PCRFTB) are located at the Swansea University and Morriston Hospital sites, respectively.

A visual inspection of the hub and satellite sites included a number of storage areas where human tissue was being stored. Tissue is stored at -80°C, -20°C, 4^{o}C, room temperature and in liquid nitrogen.

The establishment has been licensed by the HTA since August 2016. This report describes the first, routine, site visit inspection of this establishment post the licensing application visit. The timetable for the site visit inspection was developed in consideration of the establishment's licence application, compliance update information and pre-inspection discussions with the DI.

Description of inspection activities undertaken

The site visit inspection included a visual inspection of the storage areas, a review of documentation and meetings with establishment staff. An audit of traceability records, including paper-based and electronic databases, and storage locations was conducted for each of the tissue collections held under the HTA licence. All samples reviewed during the audit were chosen at random by the inspection team. Anomalies were found in traceability records for collections held in Institute of Life Science 1, Diabetes Research Unit and the PCRFTB (see shortfalls against T1(b), T1(c), T1(d) and T1(e). Consent documentation and training of staff involved in seeking consent were also reviewed for samples identified during the traceability audits (see shortfalls against C1(c) and C2(a)).

The inspection team conducted interviews with the Principle Investigators, Senior Technicians, PDs, consent seekers, the HTA Governance Officer and the DI.

A summary of each of the sites is described below:

Swansea University Medical School:

This department consists of a number of research groups in which some relevant material is currently stored under the licence. Material is stored between the Institute of Life Science 1 and 2 buildings and the Diabetic Research Unit in the Grove building. The Swansea Neurology Biobank holds a historical imported collection of brain sections stored at 4^{o}C. A small collection of brain sections transferred from the post mortem licence at ABM (as both blocks and slides used for teaching purposes) and a selection of commercially sourced tissue microarray slides are all stored at ambient temperature within the department under the HTA licence. The majority of the material in this department is held under current, recognised REC approval and is therefore excepted from the licensing requirements of the HT Act. The department holds approximately 1200 samples from both living and deceased donors. Consent is sought by individuals from each research study, the training for which is part of the Good Clinical Practice provided by the Health and Care Research Wales (HCRW). Staff working under the licence are also required to attend in-house training sessions or undertake the MRC online training module.

Singleton Hospital:

All material held at this site is held under current, recognised REC approval or is for diagnostic purposes only and is therefore excepted from the licensing requirements of the HT Act. Commercially sourced relevant material is transferred here from the Swansea Univeristy Medical School for processing purposes only.

Morriston Hospital:

The Pancreatic Cancer Research Funded Tissue Bank (PCRFTB) is located within this satellite site. The majority of the material held at this site is under current, recognised project specific REC approval or is for diagnostic purposes only and is therefore excepted from the licensing requirements of the HT Act. However, some of the relevant material is held as part of a Research Tissue Bank and therefore is required to be held on HTA-licensed premises. The material held as part of the PCRFTB is all from living donors and is segregated from other relevant material. Consent is sought by the Tissue Collection Officer.

Inspection findings

The HTA found the Licence Holder, the Designated Individual and the premises 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 HTA's Codes of Practice		
c) Where applicable, there are agreements with other parties to ensure that consent is obtained in accordance with the requirements of the HT Act and the HTA's Codes of Practice.	No assurance was obtained from suppliers of commercially sourced material to assure the establishment that consent was obtained in accordance with the requirements of the HT Act and HTA's Codes of Practice.	**Minor**
C2 Staff involved in seeking consent receive training and support in the essential requirements of taking consent		
c) Competency is assessed and maintained.	While consent training is provided as part of the Good Clinical Practice training program, no competency assessments are undertaken of staff seeking consent post their initial training (*see advice item 2*)	**Minor**

Governance and Quality

Standard	Inspection findings	Level of shortfall
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.	Swansea University – A number of generic SOPs relating to HTA licensable activities have been developed for departments to adapt and personalise. However some SOPs/policies relating to licensable activities were missing, these include but are not limited to: • maintenance and monitoring of fridge and freezer storage units	**Minor**
GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills		
b) There are documented induction training programmes for new staff.	While there are general induction training programmes for new staff, there is no training relating to HTA licensable activites. Staff demonstrated a limited awareness of requirements of the HT Act for the storage of relevant material for a scheduled purpose or what constitutes HTA licensable activities.	**Minor**
GQ4 There is a systematic and planned approach to the management of records		
c) Systems ensure data protection, confidentiality and public disclosure (whistleblowing).	Swansea University – research staff working with link anonymised relevant material for the Swansea Neurology Biobank are able to access patient information from the database. This information is not restricted to specific staff members but is accessible to all those working with the relevant material. Appropriate restricted access to patient information should be employed to comply with regulatory/ethical requirements.	**Major**

GQ5 There are systems to ensure that all adverse events are investigated promptly		
a) Staff are instructed in how to use incident reporting systems.	While the SOP HTA-11-SOP-Adverse Event Reporting is available to all staff, it was reported incidents are not being reported to the DI by staff at the time they occur or are discovered. Instead the majority of incidents were either discovered during the recent audits that have taken place or failed to be reported.	**Minor**
b) Effective corrective and preventive actions are taken where necessary and improvements in practice are made.	A number of issues identified as part recent audits were seen to still be occurring during the site visit inspection. These included but are not limited to: • Keys left in locks of cabinets containing human tissue • Keys left in locks of freezers used to store relevant material • Swipe access doors to storage areas propped open • Labelling of blocks and slides with pen that fails to remain visible by the end of the processing method and therefore rendering the sample potentially non-identifiable.	**Major**
GQ6 Risk assessments of the establishment's practices and processes are completed regularly, recorded and monitored		
a) There are documented risk assessments for all practices and processes requiring compliance with the HT Act and the HTA's Codes of Practice.	<u>Swansea University and Singleton Hospital</u> - The establishment's risk assesments are mainly related to Health and Safety matters rather than identifying the potential risks posed to the donors and tissues in consideration of undertaking the licensed activity. Risks which have not been assessed include but are not limited to: • the retention of tissue without appropriate and valid consent, • the loss of traceability, • the loss of tissue integrity • the inappropriate or inaccurate consent-seeking processes, leading to a donor being mis-informed.	**Minor**

	Morriston Hospital – Risk assessments had been developed using the establishments template (HTA-05-TEMPLATE-Risk Assessment). However the detail was generally insufficient and the template was used ineffectively by the inappropriate grouping of risks/procedures.	

Traceability

Standard	Inspection findings	Level of shortfall
T1 A coding and records system facilitates the traceability of bodies and human tissue, ensuring a robust audit trail		
b) A register of donated material, and the associated products where relevant, is maintained.	Swansea University and Morriston Hospital – Only single copies of paper records were held at the site of storage of the relevant material. No further copies of sample location records were held in either paper or electronic format.	**Minor**
c) 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.	Swansea University - During the sample traceability audits undertaken, it was identified that the physical sample storage locations did not match those recorded on the electronic database. Morriston Hospital – Samples were identified as part of the traceability audit where the labelling had degraded, rendering it impossible to conclusively identify the sample.	**Major**
d) A system is in place to ensure that traceability of relevant material is maintained during transport.	Swansea University – Samples are transported between the university site and Singleton Hospital satellite site for processing. No records are held at either site reflecting the samples in transit between sites. This is a risk for loss of traceability of location of the samples.	**Minor**
e) Records of transportation and delivery are kept.	Swansea University – Samples are sent to Singleton Hospital for processing. Once processed, a phone call is made to the researcher to inform them to collect the samples. The samples are not recorded as being delivered or collected.	**Minor**

Premises, Facilities and Equipment

Standard	Inspection findings	Level of shortfall
PFE2 There are appropriate facilities for the storage of bodies and human tissue		
a) There is sufficient storage capacity.	Establishment staff expressed views that storage capacity, especially at -80^{o}C was insufficient for their requirements to store relevant material. The establishment had made attempts to identify contingency storage freezers; however, these were being used by other researchers to store reagents and other biological material. During the site visit, it was observed that a freezer had failed and the contingency freezer identified for Singleton Hospital was now being used to store the transferred material. The use and the removal of availability of this contingency freezer to Singleton Hospital had not been communicated to the staff concerned. This poses a risk for lack of appropriate storage of relevant material if further equipment failure should occur.	**Minor**
c) Storage conditions are monitored, recorded and acted on when required.	The majority of fridges and freezers are not externally alarmed or monitored out of hours. For freezers which were monitored and the trends recorded and reviewed, deviations from the normal temperatures were not investigated or followed up. Alarm temperature trigger point ranges were set at +/- 20 degrees from required temperature of -80^{o}C. Such large ranges appeared to fail to alert staff to regular and significant fluctuations in temperature of the storage units from the expected temperatures. Swansea University – liquid nitrogen tanks storing relevant material were placed under benches in the main laboratory area. No oxygen monitoring system was present in the area to alert staff when oxygen levels were depleted, posing a life-threatening hazard to staff in the vicinity.	**Major**

PFE3 Equipment is appropriate for use, maintained, validated and where appropriate monitored		
a) Equipment is subject to recommended calibration, validation, maintenance, monitoring, and records are kept.	Freezers were generally not maintained by staff. Freezers were found to be heavily iced up', containing large amounts of frost build up. The alarm temperature trigger points varied across all freezers and users were not always familiar with the accepted normal temperature ranges. This creates a risk of deviations from the expected normal temperatures not being identified by users when manual temperature monitoring is being undertaken. Alarm systems are not deliberately challenged by users. Temperatures are monitored based on the equipments internal temperature probe and not compared to a calibrated temperature probe. The temperatures of all storage units are not monitored out of hours and in one department it was observed when the member of staff responsible for this duty was absent the temperatures were not monitored.	**Minor**

Advice

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

No.	Standard	Advice
1.	C1(d)	Some of the participant information sheets did not explain the process by which participants can withdraw consent or provide the required contact details for them to do so. The DI is advised to review all participant information sheets to ensure contact details for withdrawal of consent information is available to the donor.
2.	C2(a)	A number of consent forms across a variety of studies were completed with ticks rather than the donor's initials as requested on the form. The DI is advised completion of consent forms should be included in the competentcy assessment audits for the consent taking procedure (see shortfall against C2(c)).
3.	GQ1(a)	The SOP covering the disposal of human tissue references the disposal of fetal material. Currently, no fetal material is used by any of the departments within the establishment and is therefore not relevant to the disposal which takes place. The DI is therefore advised this SOP should be reviewed so it reflects the activity that is currently undertaken. Morriston Hospital – The SOPs and policies relating to HTA licensable activites reference the previous HTA codes of practice and therefore require reviewing and, if appropriate updating to reflect the new HTA Codes of Practice introduced in April 2017. The DI is advised to review all documentation relating to licensable activities and ensure they reference up to date sources of information.

4.	GQ1(c)	Currently changes to SOPs and policies are sent to staff via email. However, there is no mechanism in place for staff to acknowledge they have received, read and understood the updated procedures. The DI is advised to implement a system for staff to acknowledge they have received, read and understood the revised SOP/policy.
5.	GQ2(a)	A recent schedule of audits has been implemented. The DI is advised this schedule should continue and include audits that can be used to identify areas where staff training is needed (see also shortfall against C2(c)).
6.	GQ3(b)	On interview staff demonstrated a limited awareness of requirements of the HT Act for the storage of relevant material for a scheduled purpose or what constitutes HTA licensable activities. While there is in house training for HTA licensable activities, the DI is advised all staff should attend refresher training sessions. It is advised refresher training sessions are given on a two yearly basis and attendance is recorded.
7.	T2(b)	Disposal records for slides containing human tissue vary in quality and content. The DI is advised that all studies, irrespective of whether they are held under the HTA licence or not, should have full sample traceability from point of receipt to disposal.
8.	PFE2(d)	Many of the freezers within the department are older pieces of equipment. The contingency arrangements within the establishment are limited, resulting in multiple groups needing to share contingency storage space. The DI is advised to identify further contingency arrangements to help mitigate storage issues should equipment failure occur.
9.	N/A	During the audit of material, it was noted that historical collections were being stored. These collections were reported to not be of use for any current or identified future research. The DI is therefore advised to review all holdings and determine if it is appropriate to continue to store the relevant material or dispose of sensitively.

Concluding comments

A number of examples of good practice were observed during this first routine site visit inspection of Swansea University. These included the identification of a HTA governance officer, who has developed a number of overarching SOPs and forms which can be adapted by individual users. The DI oversees multiple users of human tissue, across three sites, and is is supported by the PDs located in each of the groups.
The establishment also demonstrated a good level of interaction and communication between the DI and those carrying out licensed activities.

There are a number of areas of practice that require improvement, including four major shortfalls and eleven minor shortfalls.

The HTA requires the Designated Individual to submit a completed corrective and preventative action (CAPA) plan setting out how the shortfalls will be addressed, 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.

Report sent to DI for factual accuracy: 17 September 2018

Report returned from DI: 01 October 2018

Final report issued: 04 October 2018

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: 25 March 2019

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
a) Consent procedures are documented and these, along with any associated documents, comply with the HT Act and the HTA's Codes of Practice. b) Consent forms are available to those using or releasing relevant material for a scheduled purpose. c) Where applicable, there are agreements with other parties to ensure that consent is obtained in accordance with the requirements of the HT Act and the HTA's Codes of Practice. d) Written information is provided to those from whom consent is sought, which reflects the requirements of the HT Act and the HTA's Codes of Practice. e) Language translations are available when appropriate. f) Information is available in formats appropriate to the situation.
C2 Staff involved in seeking consent receive training and support in the essential requirements of taking consent
a) There is suitable training and support of staff involved in seeking consent, which addresses the requirements of the HT Act and the HTA's Codes of Practice. b) Records demonstrate up-to-date staff training. c) Competency is assessed and maintained.

Governance and quality system 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. b) There is a document control system. c) There are change control mechanisms for the implementation of new operational procedures. d) Matters relating to HTA-licensed activities are discussed at regular governance meetings, involving establishment staff. e) There is a system for managing complaints.
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.

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.
GQ4 There is a systematic and planned approach to the management of records
a) There are suitable systems for the creation, review, amendment, retention and destruction of records.
b) There are provisions for back-up / recovery in the event of loss of records.
c) Systems ensure data protection, confidentiality and public disclosure (whistleblowing).
GQ5 There are systems to ensure that all adverse events are investigated promptly
a) Staff are instructed in how to use incident reporting systems.
b) Effective corrective and preventive actions are taken where necessary and improvements in practice are made.
GQ6 Risk assessments of the establishment's practices and processes are completed regularly, recorded and monitored
a) There are documented risk assessments for all practices and processes requiring compliance with the HT Act and the HTA's Codes of Practice.
b) Risk assessments are reviewed regularly.
c) Staff can access risk assessments and are made aware of risks during training.

Traceability standards
T1 A coding and records system facilitates the traceability of bodies and human tissue, ensuring a robust audit trail
a) There is an identification system which assigns a unique code to each donation and to each of the products associated with it.
b) A register of donated material, and the associated products where relevant, is maintained.
c) 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.
d) A system is in place to ensure that traceability of relevant material is maintained during transport.
e) Records of transportation and delivery are kept.
f) Records of any agreements with courier or transport companies are kept.
g) Records of any agreements with recipients of relevant material are kept.

T2 Bodies and human tissue are disposed of in an appropriate manner
a) Disposal is carried out in accordance with the HTA's Codes of Practice. b) The date, reason for disposal and the method used are documented.

Premises, facilities and equipment standards
PFE1 The premises are secure and fit for purpose
a) An assessment of the premises has been carried out to ensure that they are appropriate for the purpose. b) Arrangements are in place to ensure that the premises are secure and confidentiality is maintained. c) There are documented cleaning and decontamination procedures.
PFE2 There are appropriate facilities for the storage of bodies and human tissue
a) There is sufficient storage capacity. b) Where relevant, storage arrangements ensure the dignity of the deceased. c) Storage conditions are monitored, recorded and acted on when required. d) There are documented contingency plans in place in case of failure in storage area.
PFE3 Equipment is appropriate for use, maintained, validated and where appropriate monitored
a) Equipment is subject to recommended calibration, validation, maintenance, monitoring, and records are kept. b) Users have access to instructions for equipment and are aware of how to report an equipment problem. c) Staff are provided with suitable personal protective equipment.

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.