Site visit inspection report on compliance with HTA minimum standards

Biovault Scientific Ltd

HTA licensing number 11063

Licensed for the

- **procurement, processing, testing, storage, distribution and import/export of human tissues and cells for human application under the Human Tissue (Quality and Safety for Human Application) Regulations 2007**

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

13 and 14 March 2018

Summary of inspection findings

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

Although the HTA found that Biovault Scientific Ltd (the establishment) had met the majority of the HTA standards, five shortfalls were found. Two of these shortfalls were major shortfalls. The first was in relation to Governance and Quality Systems and the requirement to ensure that the time in transit of the maternal blood samples prior to testing for infectious diseases meets the test kits specification. The second major shortfall was related to Premises and Facilities and Equipment and the requirement to ensure that practices in the clean room were consistent with the formal designation of these areas. Three minor shortfalls were found in relation to the limited scope of internal audits, the failure to report serious adverse events and reactions (SAEARs) and contingency arrangements for the failure of the controlled-rate freezer.

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 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.

Licensable activities carried out by the establishment

'E' = Establishment is licensed to carry out this activity.

'E*' = Establishment is licensed to carry out this activity but is not currently carrying it out.

'TPA' = Third party agreement; the establishment is licensed for this activity but another establishment (unlicensed) carries out the activity on their behalf.

Tissue category; tissue type	Procurement	Processing	Testing	Storage	Distribution	Import	Export
Musculoskeletal, Bone; Bone				**E**	**E**	**E**	
Musculoskeletal, Tendon & Ligament; Tendons				**E**	**E**	**E**	
Musculoskeletal, Tendon & Ligament; Menisci				**E**	**E**	**E**	
Membrane, Fascia Lata; Fascia Lata				**E**	**E**	**E**	
Progenitor Cell, Hematopoietic, PBSC; PBSC		**E**		**E**	**E**		
Progenitor Cell, Hematopoietic, Bone Marrow; Bone marrow		**E***		**E***	**E***		

Mature Cell, T Cell (DLI); DLIs		**E**		**E**	**E**		
Progenitor Cell, Hematopoietic, Cord Blood; Cord Blood	**TPA**	**E**	**TPA**	**E**	**E**	**E**	**E**
Other; Cord tissue	**TPA**	**E**	**TPA**	**E**	**E**	**E**	**E**

Background to the establishment and description of inspection activities undertaken

This report refers to the activities undertaken by Biovault Scientific Ltd. The establishment has been in operation since 2002 and has held a licence since 2007. Activities carried out under the licence include procurement, testing, processing, storage, distribution and import/export of human tissues and cells.

The establishment is based on the Plymouth International Medical & Technology Park and offers a range of tissue banking services and facilities to both the public and private sectors. Biovault Scientific Ltd trades as Biovault Family and provides a cord blood (UCB) and cord tissue (UCT) banking service to clients in the UK. The establishment also trades as Biovault Technical Ltd which is a business-to-business enterprise procuring UCB and UCT via partner organisations in Europe and the rest of the world. Under appropriate agreements, the establishment provides procurement kits to the partner organisations. Biovault Technical also provides a processing service, for another HTA-licensed establishment, for PBSCs, BM and DLIs, which have been procured under that establishment's licence. In addition, the establishment imports muscoskeletal tissue and Fascia Lata from a third country for storage and distribution to end users.

Processing of tissues and cells takes place within a dedicated clean room facility comprising of two Grade B clean rooms, each containing microbiological safety cabinets capable of providing a Grade A environment. One of the clean rooms is dedicated for the processing of PBSCs, BM and DLIs, and the second for the processing of UCB and UCT. However, in the event of an emergency tissues and cells may be processed in either clean room.

All critical, open processing takes place within the microbiological safety cabinets during which environmental monitoring in the form of non-viable particulate monitoring, active air sampling at rest and during processing. Monitoring by contact plates and finger dabs are also carried out. Plates for microbiological testing are incubated and analysed in-house. Broth samples for sterility testing are sent to a third party along with frozen serum obtained from blood samples for donor serology testing.

Although the majority of tissues and cells are processed by the establishment's core staff, PBSCs, BM and DLIs procured at another HTA-licensed establishment are processed by Biomedical Scientists from that organisation under the terms of appropriate agreements. Staff from the other HTA-licensed establishment who process tissues and cells in Biovault's clean room facility do so according to procedures defined by that establishment and only after completion of appropriate training. Honorary contracts are also given to these staff to help ensure there is appropriate oversight of this work.

This report describes the sixth routine site visit inspection. The inspection included a visual inspection of the sample receipt, processing and cryostorage areas. The primary focus of this inspection was observation of the processing activities conducted at the establishment. Roundtable discussions were held with members of staff involved with processing of cord blood and cord tissue, customer operations, quality systems, audits and incidence reporting. Prior to the inspection the HTA requested information on all UCB and UCT samples received in the preceding two years. The data supplied included information on country of origin, dates of birth, collection, receipt and processing. Analysis of the data highlighted a small number

(less than one percent) of incorrect data entries primarily related to dates of birth or collection resulting in the suggestion that samples were in transit for negative periods of time. However, on review of the process documentation on the day of inspection the actual dates of birth or collections were verified. From this data set, the records for five cord blood and five separate cord tissue were reviewed. This included checking the consent forms, medical questionnaire, timings and outcomes of the mandatory serology results, processing and environmental monitoring records and ongoing validation data. Although full traceability was demonstrated there was a concern whether samples taken for serology testing were stored in accordance with the kit manufacturers' stipulated specification. An audit of a tendon and acellular cancellous bone was also conducted and full traceability was demonstrated.

The establishment is also licensed for the storage of relevant material which has come from a human body for use for a scheduled purpose under the Human Tissue Act 2004. During this inspection only the consent to use UCB and UCT for research was reviewed. This included reviewing agreements with another licensed establishment to provide UCB and UCT for research and the establishment's own consent form for using a section of client's UCT for in-house validation studies. Two client consent forms were examined and no discrepancies were found. The establishment also stores relevant material for use in a qualifying research project with approval from a recognised Research Ethics Committee; storage of this material is therefore exempted from the licensing requirements of the HTA.

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

All applicable HTA standards have been assessed as fully met.

Governance and Quality

Standard	Inspection findings	Level of shortfall
GQ2 There is a documented system of quality management and audit.		
b) There is an internal audit system for all licensable activities.	Although the establishment conducts internal audits, not all the relevant standards applicable to this licence have been assessed for example, audits did not cover donor selection, testing platforms, and environmental monitoring at US tissue suppliers. In addition, audits have been based on the HTA's Codes of practice and not the Quality and Safety Regulations.	**Minor**

GQ5 There are documented procedures for donor selection and exclusion, including donor criteria.		
b) The testing of donors by the establishment or a third party on behalf of the establishment is carried out in accordance with the requirements of Directions 003/2010.	Testing of donors is undertaken by a third party on behalf of the establishment. The blood sample storage and testing times stipulated in serology testing kits used by the third party is not in line with the establishment's practices. For example, the Nucleic Acid amplification test kit for HIV stipulates that the plasma sample should be stored at 2°C-8°C for no longer than 12 hours or frozen at -20°C to - 80°C. Donor whole blood samples are routinely in transit for more than 12 hours. The establishment had been previously advised, by the HTA, to ensure that samples for serology testing meet the required kit specification.	**Major**
GQ7 There are systems to ensure that all adverse events are investigated promptly.		
a) There are procedures for the identification, reporting, investigation and recording of adverse events and reactions, including documentation of any corrective or preventative actions.	A review of the incident records revealed a number of occasions when the incidents should have been reported as a Serious Adverse Events and Serious Reactions (SAEARs) to the HTA within 24 hours of discovery. These included the failure of a controlled-rate freezer and using out-of-date flow cytometry controls.	**Minor**

Premises, Facilities and Equipment

PFE2 Environmental controls are in place to avoid potential contamination		
b) Where processing of tissues and / or cells involves exposure to the environment, it occurs in an appropriate, monitored environment as required by Directions 003/2010. c) There are procedures for cleaning and decontamination.	The HTA's Guide to Quality and Safety Assurance for Human Tissue and Cells for Patient Treatment, which forms the Annex to Directions 003/2010, sets out that where tissues or cells are exposed to the environment during processing, without a subsequent microbial inactivation process, then this must be in a working environment with air particle counts and microbial colony counts equivalent to those of Grade A as defined in the current European Guide to Good Manufacturing Practice (GMP), Annex 1 of Directive 2003/94/EC. The background environment for the processing of the tissue must be at least equivalent to Grade D. To demonstrate compliance with the requisite air particle requirements measurements must be taken at rest and in operation. During the inspection, it was noted that active air sampling of the Grade B area	**Major**

	takes place only for the first ten minutes, when the clean room is being prepared for processing, and there is only one member of staff present. Similarly active air sampling takes place only during the first ten minutes of processing in the Grade A cabinet. If processing takes longer than ten minutes, as observed during the inspection for PBSC processing, the environment is not monitored in such a way as to demonstrate that microbial colony counts equivalent to those of Grade A have been achieved. Other aspects of the establishment's procedures were not consistent with the requirement to monitor the environment within the clean room and to have appropriate procedures in place for cleaning and decontamination. For example: • The establishment has made no provision within its procedures for the routine monitoring of the transfer hatch between the tissue reception area and the clean room, or of the heat sealers used within the clean room. • Gas or water taps in one of the microbiological safety cabinets have been removed but the port holes have not been covered. No formal consideration has been given to the impact these changes may have had on the suitability of the establishment's cleaning and monitoring procedures or on the air flow within the cabinet. • Staff do not consistently spray their gloves after disposing items into the clean room's central waste bin or prior to beginning processing within the Grade A cabinet.	

PFE5 Equipment is appropriate for use, maintained, quality assured, validated and where appropriate monitored		
c) Equipment affecting critical processes and storage parameters is identified and monitored to detect malfunctions and defects and procedures are in place to take any corrective actions.	In the event of a controlled-rate freezer (CRF) failing to reach -60˚C the UCB or UCT will be transferred to another CRF that is within 30˚C of the sample temperature. However, there was evidence of an incidence when the samples were placed when the freezer was not within 30˚C. The establishment did not provide any validation data to support this procedure.	**Minor**

Advice

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

No.	Standard	Advice
1.	GQ1b	The DI is advised to review the SOP for recording flow cytometry data, and the product specifications agreed with partner offices, to ensure that they reflect current practices.
2.	GQ1k	The DI is advised to review the SOP for “Product failure, Discard and Returns Policy” to ensure suitable checks are in place to determine whether frozen muscoskeletal products have been removed, repackaged by the end-user and subsequently returned to the establishment.
3.	GQ2b	The DI is advised to incorporate the cord blood and cord tissue location checks they undertake in response to client queries as part of their internal sample traceability audit.
4.	GQ4b	The DI is advised to conduct regular audits of the UCB and UCT sample receipt records to ensure accurate records are maintained.
5.	GQ4k	The end user agreement for muscoskeletal tissue and membranes requires that the traceability label is kept in the patient records. However, each product has two labels, one from the tissue bank and a second label created by the establishment upon receipt of the product. The DI is advised to clarify which label end users must retain in patient records.
6.	GQ5b	The DI is advised to request that the third party testing laboratory includes the date when the serology tests were conducted on the test report.
7.	GQ7a	The DI is advised to review the SOP for SAEARs reporting and remove reference to the Human Tissue Act 2004 and ensure that suitable examples of SAEARs are included.
8.	PFE2a	Although the establishment deals with non-conforming frozen muscoskeletal tissue and membranes almost immediately, the DI is advised to make provision for a quarantine area in the -80°C freezer.
9.	PFE2b	Staff record the displayed pressure readings in the change areas and clean rooms. The DI is advised to amend this form so that the pressure differential between the containment areas is documented.
10.	PFE2d	Processing waste is placed either in clinical waste or sharps bins located in the

		middle of the clean room. The DI is advised to risk assess the location of the bins, and the frequency at which the sharps bin is emptied.
11.	PFE3c	The DI is advised to review the levels of consumables stored in the Grade B area and ensure that only the requisite amount of stock is brought into the clean room.
12.	PFE5a	The incubators are calibrated in-house. Every three months, a temperature monitor is place on the middle shelf and the temperature recorded is checked against the digital read out. The DI is advised to extend the locations where the monitor is placed to confirm temperature uniformity throughout the incubators.

Concluding comments

There were a number of strengths and areas of good practice observed during this inspection. The establishment holds regular meetings with the HTA-licensed establishment that procures PBSCs, BM and DLIs. As well as holding Joint Accreditation Committee-ISCT (Europe) & EBMT (JACIE) accreditation, the establishment is now accredited by the American Association of Blood Banks (AABB).

There are a number of areas of practice that require improvement, resulting in two major shortfalls and three minor shortfalls. The HTA has given advice to the Designated Individual with respect to Governance and Quality systems and Premises, Facilities and Equipment

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 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: 25 April 2018

Report returned from DI: 06 June 2018

Final report issued: 07 June 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: 15 January 2020

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.

Human Tissue (Quality and Safety for Human Application) Regulations 2007 Standards

Standard
C1 Consent is obtained in accordance with the requirements of the HT Act 2004, the Human Tissue (Quality and Safety for Human Application) Regulations 2007 and as set out in the HTA's Codes of Practice.
a) If the establishment acts as a procurer of tissues and / or cells, there is an established process for acquiring donor consent which meets the requirements of the HT Act 2004 the Human Tissue (Quality and Safety for Human Application) Regulations 2007 (Q&S Regulations) and the HTA's Codes of Practice
b) If there is a third party procuring tissues and / or cells on behalf of the establishment the third party agreement ensures that consent is obtained in accordance with the requirements of the HT Act 2004, the Q&S Regulations and the HTA's Codes of Practice.
c) The establishment or the third party's procedure on obtaining donor consent includes how potential donors are identified and who is able to take consent.
d) Consent forms comply with the HTA Codes of Practice.
e) Completed consent forms are included in records and are made accessible to those using or releasing tissue and / or cells for a Scheduled Purpose.
C2 Information about the consent process is provided and in a variety of formats.
a) The procedure on obtaining consent details what information will be provided to donors. As a minimum, the information specified by Directions 003/2010 is included.
b) If third parties act as procurers of tissues and / or cells, the third party agreement details what information will be provided to donors. As a minimum, the information specified by Directions 003/2010 is included.
c) Information is available in suitable formats and there is access to independent interpreters when required.
d) There are procedures to ensure that information is provided to the donor or donor's family by trained personnel.
C3 Staff involved in seeking consent receive training and support in the implications and essential requirements of taking consent.
a) Staff involved in obtaining consent are provided with training on how to take informed consent in accordance with the requirements of the HT Act 2004 and Code of Practice on Consent.
b) Training records are kept demonstrating attendance at training on consent.

Governance and Quality

Standard
GQ1 All aspects of the establishment's work are supported by ratified documented policies and procedures as part of the overall governance process.
a) There is an organisational chart clearly defining the lines of accountability and reporting relationships.
b) There are procedures for all licensable activities that ensure integrity of tissue and / or cells and minimise the risk of contamination.
c) There are regular governance meetings, for example health and safety, risk management and clinical governance committees, which are recorded by agendas and minutes.
d) There is a document control system to ensure that changes to documents are reviewed, approved, dated and documented by an authorised person and only current documents are in use.
e) There are procedures for tissue and / or cell procurement, which ensure the safety of living donors.
f) There are procedures for tissue and / or cell procurement, which ensure the dignity of deceased donors.
g) There are procedures to ensure that an authorised person verifies that tissues and / or cells received by the establishment meet required specifications.
h) There are procedures for the management and quarantine of non-conforming consignments or those with incomplete test results, to ensure no risk of cross contamination.
i) There are procedures to ensure tissues and / or cells are not released from quarantine until verification has been completed and recorded.
j) There are procedures detailing the critical materials and reagents used and where applicable, materials and reagents meet the standards laid down by the European directives on medical devices and in vitro diagnostic medical devices.
k) There is a procedure for handling returned products.
l) There are procedures to ensure that in the event of termination of activities for whatever reason, stored tissues and / or cells are transferred to another licensed establishment or establishments.
m) The criteria for allocating tissues and / or cells to patients and health care institutions are documented and made available to these parties on request.
n) The establishment ensures imports from non EEA states meet the standards of quality and safety set out in Directions 003/2010.
o) There is a complaints system in place.
p) There are written agreements with third parties whenever an activity takes place that has the potential to influence the quality and safety of human tissues and / or cells.
q) There is a record of agreements established with third parties.
r) Third party agreements specify the responsibilities of the third party and meet the requirements set out in Directions 003/2010.
s) Third party agreements specify that the third party will inform the establishment in the event of a serious adverse reaction or event.

t) There are procedures for the re-provision of service in an emergency.
GQ2 There is a documented system of quality management and audit.
a) There is a quality management system which ensures continuous and systematic improvement.
b) There is an internal audit system for all licensable activities.
c) An audit is conducted in an independent manner at least every two years to verify compliance with protocols and HTA standards, and any findings and corrective actions are documented.
d) Processes affecting the quality and safety of tissues and / or cells are validated and undergo regular evaluation to ensure they continue to achieve the intended results.
GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills.
a) There are clearly documented job descriptions for all staff.
b) There are orientation and induction programmes for new staff.
c) There are continuous professional development (CPD) plans for staff and attendance at training is recorded.
d) There is annual documented mandatory training (e.g. health and safety and fire).
e) Personnel are trained in all tasks relevant to their work and their competence is recorded.
f) There is a documented training programme that ensures that staff have adequate knowledge of the scientific and ethical principles relevant to their work, and the regulatory context.
g) There is a documented training programme that ensures that staff understand the organisational structure and the quality systems used within the establishment.
h) There is a system of staff appraisal.
i) Where appropriate, staff are registered with a professional or statutory body.
j) There are training and reference manuals available.
k) The establishment is sufficiently staffed to carry out its activities.
GQ4 There is a systematic and planned approach to the management of records.
a) There are procedures for the creation, identification, maintenance, access, amendment, retention and destruction of records.
b) There is a system for the regular audit of records and their content to check for completeness, legibility and accuracy and to resolve any discrepancies found.
c) Written records are legible and indelible. Records kept in other formats such as computerised records are stored on a validated system.
d) There is a system for back-up / recovery in the event of loss of computerised records.
e) The establishment keeps a register of the types and quantities of tissues and / or cells that are procured, tested, preserved, processed, stored and distributed or otherwise disposed of, and on the origin and destination of tissues and cells intended for human application.
f) There are procedures to ensure that donor documentation, as specified by Directions 003/2010, is collected and maintained.

g) There is a system to ensure records are secure and that donor confidentiality is maintained in accordance with Directions 003/2010.
h) Raw data which are critical to the safety and quality of tissues and cells are kept for 10 years after the use, expiry date or disposal of tissues and / or cells.
i) The minimum data to ensure traceability from donor to recipient as required by Directions 003/2010 are kept for 30 years after the use, expiry or disposal of tissues and / or cells.
j) Records are kept of products and material coming into contact with the tissues and / or cells.
k) There are documented agreements with end users to ensure they record and store the data required by Directions 003/2010.
l) The establishment records the acceptance or rejection of tissue and / or cells that it receives and in the case of rejection why this rejection occurred.
m) In the event of termination of activities of the establishment a contingency plan to ensure records of traceability are maintained for 10 or 30 years as required.
GQ5 There are documented procedures for donor selection and exclusion, including donor criteria.
a) Donors are selected either by the establishment or the third party acting on its behalf in accordance with the criteria required by Directions 003/2010.
b) The testing of donors by the establishment or a third party on behalf of the establishment is carried out in accordance with the requirements of Directions 003/2010.
c) In cases other than autologous donors, donor selection is carried out by authorised personnel and signed and reviewed by a qualified health professional.
d) There is a system in place either at the establishment or at a third party acting on its behalf to record results of donor selection and associated tests.
e) Testing of donor samples is carried out using CE marked diagnostic tests.
f) Samples taken for donor testing are clearly labelled with the time and place the sample was taken and a unique donor identification code.
GQ6 A coding and records system facilitates traceability of tissues and / or cells, ensuring a robust audit trail.
a) There is a donor identification system which assigns a unique code to each donation and to each of the products associated with it.
b) An audit trail is maintained, which includes details of when the tissues and / or cells were acquired and from where, the uses to which the tissues and / or cells were put, when the tissues and / or cells were transferred elsewhere and to whom.
c) The establishment has procedures to ensure that tissues and / or cells imported, procured, processed, stored, distributed and exported are traceable from donor to recipient and vice versa.
GQ7 There are systems to ensure that all adverse events, reactions and/or incidents are investigated promptly.
a) There are procedures for the identification, reporting, investigation and recording of adverse events and reactions, including documentation of any corrective or preventative actions.
b) There is a system to receive and distribute national and local information (e.g. HTA regulatory alerts) and notify the HTA and other establishments as necessary of serious adverse events or reactions.

c) The responsibilities of personnel investigating adverse events and reactions are clearly defined.
d) There are procedures to identify and decide the fate of tissues and / or cells affected by an adverse event, reaction or deviation from the required quality and safety standards.
e) In the event of a recall, there are personnel authorised within the establishment to assess the need for a recall and if appropriate initiate and coordinate a recall.
f) There is an effective, documented recall procedure which includes a description of responsibilities and actions to be taken in the event of a recall including notification of the HTA and pre-defined times in which actions must be taken.
g) Establishments distributing tissue and / or cells provide information to end users on how to report a serious adverse event or reaction and have agreements with them specifying that they will report these events or reactions.
h) Establishments distributing tissues and / or cells have systems to receive notifications of serious adverse events and reactions from end users and notify the HTA.
GQ8 Risk assessments of the establishment's practices and processes are completed regularly and are recorded and monitored appropriately.
a) There are documented risk assessments for all practices and processes.
b) Risk assessments are reviewed regularly, as a minimum annually or when any changes are made that may affect the quality and safety of tissues and cells.
c) Staff can access risk assessments and are made aware of local hazards at training.
d) A documented risk assessment is carried out to decide the fate of any tissue and / or cells stored prior to the introduction of a new donor selection criteria or a new processing step, which enhances the quality and safety of tissue and / or cells.

Premises, Facilities and Equipment

Standard
PFE1 The premises are fit for purpose.
a) A risk assessment has been carried out of the premises to ensure that they are fit for purpose.
b) There are procedures to review and maintain the safety of staff, visitors and patients.
c) The premises have sufficient space for procedures to be carried out safely and efficiently.
d) Where appropriate, there are procedures to ensure that the premises are of a standard that ensures the dignity of deceased persons.
e) There are procedures to ensure that the premises are secure and confidentiality is maintained.
f) There is access to a nominated, registered medical practitioner and / or a scientific advisor to provide advice and oversee the establishment's medical and scientific activities.
PFE2 Environmental controls are in place to avoid potential contamination.
a) Tissues and / or cells stored in quarantine are stored separately from tissue and / or cells that have been released from quarantine.
b) Where processing of tissues and / or cells involves exposure to the environment, it occurs in an appropriate, monitored environment as required by Directions 003/2010.
c) There are procedures for cleaning and decontamination.

d) Staff are provided with appropriate protective clothing and equipment that minimise the risk of contamination of tissue and / or cells and the risk of infection to themselves.
PFE3 There are appropriate facilities for the storage of tissues and / or cells, consumables and records.
a) Tissues, cells, consumables and records are stored in secure environments and precautions are taken to minimise risk of damage, theft or contamination.
b) There are systems to deal with emergencies on a 24 hour basis.
c) Tissues and / or cells are stored in controlled, monitored and recorded conditions that maintain tissue and / or cell integrity.
d) There is a documented, specified maximum storage period for tissues and / or cells.
PFE4 Systems are in place to protect the quality and integrity of tissues and / or cells during transport and delivery to its destination.
a) There is a system to ensure tissue and / or cells are not distributed until they meet the standards laid down by Directions 003/2010.
b) There are procedures for the transport of tissues and / or cells which reflect identified risks associated with transport.
c) There is a system to ensure that traceability of tissues and / or cells is maintained during transport.
d) Records are kept of transportation and delivery.
e) Tissues and / or cells are packaged and transported in a manner and under conditions that minimise the risk of contamination and ensure their safety and quality.
f) There are third party agreements with courier or transport companies to ensure that any specific transport conditions required are maintained.
g) Critical transport conditions required to maintain the properties of tissue and / or cells are defined and documented.
h) Packaging and containers used for transportation are validated to ensure they are fit for purpose.
i) Primary packaging containing tissues and / or cells is labelled with the information required by Directions.
j) Shipping packaging containing tissues and / or cells is labelled with the information required by Directions.
PFE5 Equipment is appropriate for use, maintained, quality assured, validated and where appropriate monitored.
a) Critical equipment and technical devices are identified, validated, regularly inspected and records are maintained.
b) Critical equipment is maintained and serviced in accordance with the manufacturer’s instructions.
c) Equipment affecting critical processes and storage parameters is identified and monitored to detect malfunctions and defects and procedures are in place to take any corrective actions.
d) New and repaired equipment is validated before use and this is documented.
e) There are documented agreements with maintenance companies.

f) Cleaning, disinfection and sanitation of critical equipment is performed regularly and this is recorded.
g) Instruments and devices used for procurement are sterile, validated and regularly maintained.
h) Users have access to instructions for equipment and receive training in the use of equipment and maintenance where appropriate.
i) Staff are aware of how to report an equipment problem.
j) For each critical process, the materials, equipment and personnel are identified and documented.
k) There are contingency plans for equipment failure.

Disposal

Standard
D1 There is a clear and sensitive policy for disposing of tissues and / or cells.
a) The disposal policy complies with HTA's Codes of Practice.
b) The disposal procedure complies with Health and Safety recommendations.
c) There is a documented procedure on disposal which ensures that there is no cross contamination.
D2 The reasons for disposal and the methods used are carefully documented.
a) There is a procedure for tracking the disposal of tissue and / or cells that details the method and reason for disposal.
b) Disposal arrangements reflect (where applicable) the consent given for disposal.

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 (HA)

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 direct risk of causing harm to a recipient patient or to a living donor,

   Or

   A number of 'major' shortfalls, none of which is critical on its own, but viewed cumulatively represent a systemic failure and therefore are considered 'critical'.

   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.

   A shortfall in the carrying out of licensable activities which poses an indirect risk to the safety of a donor or a recipient

   or

   A shortfall in the establishment's quality and safety procedures which poses an indirect risk to the safety of a donor or a recipient;

   or

   A shortfall which indicates a major deviation from the **Human Tissue (Quality and Safety for Human Application) Regulations 2007** or the **HTA Directions**;

   or

A shortfall which indicates a failure to carry out satisfactory procedures for the release of tissues and cells or a failure on the part of the designated individual to fulfil his or her legal duties;

or

A combination of several 'minor' shortfalls, none of which is major on its own, but which, viewed cumulatively, could constitute a major shortfall by adversely affecting the quality and safety of the tissues and cells.

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 and, which can be addressed by further development by the establishment.

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 review or at the time of the next inspection.

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.