Site visit inspection report on compliance with HTA minimum standards

Moorfields Eye Hospital

HTA licensing number 11040

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 (as amended); and**

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

17 - 18 July 2018

Summary of inspection findings

The HTA found the Licence Holder suitable in accordance with the requirements of the legislation but is concerned over the suitability of the DI due to the number and recurrent nature of the shortfalls identified as part of this site visit inspection.

Although the HTA found that Moorfields Eye Hospital (the establishment) had met many of the HTA standards, one critical, nine major and two minor shortfalls were found in relation to Governance and Quality Systems and Premises, Facilities and Equipment. A further minor shortfall was found in relation to the Human Tissue Act (2004). The critical shortfall relates to the requirement to improve governance of quality management which was highlighted in the last inspection and continues to be lacking. The major shortfalls were related to issues identified with the functioning of the clean room and having appropriate measures in place to monitor the quality and safety of tissues during processing; ensuring tissues were stored at the appropriate temperature; monitoring the temperature of fridges and freezers; capturing all procedures in ratified SOPs; ensuring that the 3CS meets the required standards of quality and safety for imported tissues; the gowning procedures and the absence of ongoing refresher training; the absence of regular and effective internal audits; storage of raw data; the scope of risk assessments; the procedures for the release of tissue and the validation of transport kits. The minor shortfalls relate to the absence of a risk assessment for the premises and facilities; the absence of contingency arrangements in case of equipment failure and for having no oversight of the consent status of the relevant material stored under the Human Tissue Act.

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 Paragraph 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
Ocular; cornea	**E / TPA**	**E**	**TPA**	**E**	**E**	**E**	**E***
Ocular; Sclera	**E / TPA**	**E**	**TPA**	**E**	**E**	**E**	**E***
Membrane, Amniotic; Amniotic membrane				**E**			

Background to the establishment and description of inspection activities undertaken

Moorfields Lion Eye Bank (MLEB) is based at Moorfields Eye Hospital. MLEB procures, processes, stores, imports and distributes ocular tissue which is used for corneal transplantation and some glaucoma surgery.

Consent and procurement

Ocular Tissue Donor Coordinators liaise with hospitals in London to identify potential donors by working closely with their bereavement teams. The establishment is also alerted to potential donors by staff at hospitals and hospices in London and South East England, as well as by families who call the establishment directly. The coordinators check the national organ donor register and contact relatives to discuss eye donation and/or donation of tissue for research. The coordinators seek consent and undertake patient assessments based on the medical and behavioural history of the potential donor provided by the donor's family and GP. Donor acceptance criteria are based on current Joint United Kingdom (UK) Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee (JPAC) guidance.

Cadaveric donor ocular tissue is procured by trained members of staff from the establishment and transported to the establishment on ice in standard consumer cool bags.

Tissue may also be procured by teams acting under the authority of a Third Party Agreement with the establishment. The establishment has also received donated tissue from a Danish eye bank. In all cases, donor blood samples are also obtained for mandatory serology tests, and testing is undertaken under a service level agreement with another HTA-licensed establishment.

Processing and storage

Processing is carried out by three members of staff, two with many years' experience and one new to the role (less than one year of technical experience). The establishment has a clean room suite for the processing of ocular tissue. The processing room comprises Grade A cabinets within a Grade B background air quality environment. The eyes undergo a surface decontamination step before the corneas and sclera are dissected. Sclera are split into four pieces per eye, and each piece is stored separately in alcohol for up to 12 months. Corneas are incubated in organ culture medium at 31ºC for up to 28 days before transfer to de-swelling media for up to four days. The establishment has temporarily ceased cutting corneas for Descemet's Stripping Automated Endothelial Keratoplasty (DSAEK) cases until all staff receive further training.

Import, Export and Distribution outside the UK

Corneal tissue is imported on a routine basis from a single supplier in the US. There is a formal agreement in place with the supplier. The imported tissue is supplied ready for transplant, and no processing of this material takes place at the establishment. No tissue is exported or distributed outside the UK.

Donor suitability and issue for end use

Tissue requests from Moorfields' consultants are matched with tissues suitable for transplant, and from this information a daily issue list is produced by the establishment. Tissues are used by Moorfields' consultants within Moorfields Eye Hospital's main City Road site or at other Moorfields Eye Hospital locations based around London and the South East.

A routine inspection was conducted on the 17-18 July 2018. This was the seventh site visit inspection of the establishment since it was licensed by the HTA in 2007. The primary focus of this inspection were the processing and import activities of MLEB. The inspection involved a visual inspection of the premises and the fridge, located near the hospital's theatre, used to store ocular tissue. An audit of four corneas that were being processed and the records of one released cornea and one imported product were reviewed. Discussions were held with the establishment's staff. A number of discrepancies were found during the audit of tissue processing and release records.

The inspection of relevant material, stored under the Human Tissue Act (2004), for the purpose of research, was limited to viewing the storage location.

Inspection findings

The HTA found the Licence Holder to be suitable in accordance with the requirements of the legislation. The HTA is concerned that the DI does not have the required support or protected time to fulfil the primary (legal) responsibilities under the Human Tissue (Quality and Safety for Human Application) Regulations 2007 (as amended). A number of issues identified in previous inspections appear to be recurring. Following the last inspection, the HTA worked closely with the DI to advise on how to address some of the findings. However, a number of the agreed corrective and preventative actions (CAPAs) remain open at the time of this inspection and where action has been taken the findings of this inspection indicate that this has not always remedied the underlying issue. Where this is the case, the DI has failed to identify the need for further action.

The HTA intends to conduct a further inspection and as part of this process will make a final assessment of the suitability of the DI.

Compliance with HTA standards

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

Governance and Quality

Standard	Inspection findings	Level of shortfall
GQ2 There is a documented system of quality management and audit.		
a) There is a quality management system which ensures continuous and systematic improvement.	The requirement to improve governance of quality management was issues highlighted in the last inspection and continue to be lacking.	**Critical (cumulative)**
GQ1 All aspects of the establishment's work are supported by ratified documented policies and procedures as part of the overall governance process.		

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. g) There are procedures to ensure that an authorised person verifies that tissues and / or cells received by the establishment meet required specifications.	Standard operating procedures (SOPs) were in draft format and appeared to have only recently been compiled. There was no evidence that staff had read the SOPs. The draft SOP for "Receipt and acceptance of ocular tissue from external suppliers" (MLEB-DOC-SOP-E2.02) does not include all tissue received by the establishment nor is there a reference to any quality checks of the tissue itself. ***Following the inspection, the establishment formally issued the SOPs. However, the documents have not been sufficiently reviewed by the establishment to ensure that, for example, references to documents are correctly captured and information is accurately documented***	
GQ4 There is a systematic and planned approach to the management 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.	The absence of regular effective internal audits was highlighted at the previous inspection and was evident during this inspection. The tissue receipt logs were completed inconsistently and information such as tissue expiry dates was not recorded. In addition, daily records for the monitoring of temperature and pressure cascades had fields that were left blank.	
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 changes are made that may affect the quality and safety of tissues and cells.	The risk assessment does not take into account all the factors that may affect the quality and safety of the tissues. This deficiency was highlighted at the last inspection.	
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.	A review of the pressure logs within the clean room revealed numerous instances where the pressure differential between adjacent rooms did not meet set limits. This issue was identified during the last inspection. These excursions were not highlighted on the pressure log form that was introduced following the last inspection nor investigated appropriately. An error in the design of the form meant that the differential was not recorded for all areas.	

Standard	**Inspection findings**	**Level of shortfall**
GQ1 All aspects of the establishment's work are supported by ratified documented policies and procedures as part of the overall governance process.		
b) There are procedures for all licensable activities that ensure integrity of tissue and / or cells and minimise the risk of contamination.	Ocular tissue for use within Moorfields Eye Hospital is stored in a fridge, currently located outside the theatres. This fridge is located close to a sink and it was reported that patient samples are occasionally stored in it alongside ocular tissue. These practices have the potential to compromise the quality and safety of the tissues.	**Major**
n) The establishment ensures	The establishment's third country supplier	**Major**

imports from non EEA states meet the standards of quality and safety set out in Directions 002/2018	(3CS) carries out aseptic processing of ocular tissue products. However, the 3CS's procedures do not meet the requisite air particle monitoring requirements at rest and in operation as set out in Directions 002/2018. The temperature of tissue received from the 3CS is not monitored in transit. In addition, the transport validation report supplied by the 3CS did not define room temperature. The establishment therefore cannot assure themselves that samples are shipped in such a way as to ensure the quality and safety of the tissues. The practices and processes of the 3CS have not been audited by MLEB to ensure that the products supplied by the 3CS meet the requirements of the Human Tissue (Quality and Safety for Human Application) Regulations 2007 (as amended).	
GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills		
e) Personnel are trained in all tasks relevant to their work and their competence is recorded.	Gowning instructions available in the Grade B changing area did not contain sufficient detail and were considered out of date by the DI. Furthermore, the gowning procedure for entry into the Grade B area, as described by staff, was inconsistent with the procedure followed by the DI. No refresher training or checks of gowning procedures have been undertaken to ensure that staff continue to follow the correct procedure. In addition, no consideration was given to the possible absence of the external staff member responsible for cleaning the clean rooms. Consequently, when this individual was absent, training of a replacement was provided by an external staff member rather than a member of the establishment's staff.	**Major**
GQ4 There is a systematic and planned approach to the management of records.		
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.	A review of the establishment's temperature records showed that fridge and freezer temperature data for two years (2012 and 2013) were missing.	**Major**

Standard	Inspection findings	Level of shortfall
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.	There is no formal documentation to capture all risks associated with the premises. For example, the site has a history of flooding but this has not been formally considered in a risk assessment.	**Minor**
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.	A review of the environmental monitoring data showed that the number of colony forming units for the positive control plates for bacteria or fungi ranged from zero to 'too numerous to count'. There was no evidence that the reason for these discrepancies had been investigated. Additionally, no consideration had been given to releasing any tissue processed over this period, under a concessional release process. Other aspects of the establishment's procedures, such as the cleaning and decontamination the microscope and camera in the Grade B area of the clean room, were not consistent with the requirement to monitor the environment within the clean room and to have appropriate procedures in place.	**Major**
PFE3 There are appropriate facilities for the storage of tissues and / or cells, consumables and records.		
c) Tissues and / or cells are stored in controlled, monitored and recorded conditions that maintain tissue and / or cell integrity.	The manufacturer's label stated the storage temperature of one type of tissue is -80˚C to 4˚C. A review of the temperature of the fridge, in which this tissue was stored, showed that the temperature was regularly greater than 4˚C. The operating range for this fridge was 2-8˚C and the high temperature alarm for the temperature monitoring system was above 8˚C. As a result of this, the establishment cannot ensure that tissue is not being stored in line with the manufacturer's requirements.	**Major**

c) Tissues and / or cells are stored in controlled, monitored and recorded conditions that maintain tissue and / or cell integrity.	A back-up -80 ˚C freezer in the grade C area was being used to store tissues and cells and was not continuously temperature-monitored.	
PFE4 Systems are in place to protect the quality and integrity of bodies, body parts, tissues and cells during transport and delivery to a destination.		
a) There is a system to ensure tissue and / or cells are not distributed until they meet the standards laid down by Directions 002/2018.	Since the last inspection, the establishment has modified its tissue release procedures to include a final review and sign-off step by a registered healthcare practitioner. However, it was noted that for one of the samples released under this revised procedure, two pages were missing from the donor file used during the release process. The establishment was unable to confirm whether these documents were present when the tissue was cleared for issue and subsequently lost, or not present at the time of review. This review and sign off process is not governed by a SOP. The only environmental monitoring and sterility results that are taken into account during this release process are the finger dab and culture results. The medical practitioner does not review any other information related to the processing of the tissue.	**Major**
j) Records are kept of products and material coming into contact with the tissues and / or cells.	The audit review of records for four corneas being processed showed that for one tissue, no reagent lot numbers had been recorded and for the remaining corneas, some of the reagent lot numbers were missing. At the last inspection, the establishment was provided with advice and guidance to ensure that such records were maintained.	**Major**

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. h) Packaging and containers used for transportation are validated to ensure they are fit for purpose.	The DI was previously advised that during the validation of transport containers, that they should be exposed to worst case scenario conditions. The establishment has still not taken sufficient steps to assure itself that tissue is transported under conditions that maintain the quality and safety of the tissues. Examples include, but are not limited to: • Tissue sent to satellite sites are sent 24 hours prior to surgery. Hypothermic corneal grafts and frozen amniotic membrane are placed in a cool box with wet ice from a -20˚C freezer. The establishment does not monitor the temperature of the tissues in transit nor have the transport kits been validated. • The establishment's procedures state that enucleated eyes should be transported within a temperature range of 2-8˚C. The transport validation report was based on exposing the transport kit to a room temperature of 17˚C to 21.5˚C and not the expected external transport temperatures the kit would actually be exposed to. • The establishment also distributes corneas to a number of satellite sites. The SOP requires that the corneas are transported at an ambient temperature of 15˚C-25˚C. The transport kits were validated by exposing a kit to an external temperature of 31˚C. The measurement of the internal temperature of the transport box showed that a temperature of 30˚C was reached within three hours. The establishment continues to use the transport kit even though it had not met the validation criteria.	**Major (cumulative)**
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.	There is no effective management of issues relating to the maintenance of critical equipment. For example, the HTA was advised that ultra violet (UV) lamps were used to decontaminate the biological safety cabinets (BSC). However, the lamps were not working at the time of the inspection and there was no evidence that this issue had been raised with, or highlighted by, a service engineer. The recent service records for the BSC were not available. Furthermore, the intercom used to communicate with staff working in the clean room had not been operational for some time and the door magnets were not functioning. It was therefore possible for two doors within the clean room to be opened at the same time, which could disrupt air pressure cascades. The back-up -80˚C freezer currently being used to store amniotic membrane has not been serviced in accordance with the manufacturer's requirements. A review of temperature records showed there were occasions when the fridge temperatures were above 8˚C for over five minutes. Staff did not know after what period of time the alarm would be triggered.	**Major (cumulative)**
k) There are contingency plans for equipment failure.	Following the failure of the -80˚C freezer, the establishment no longer has contingency equipment available in the event of further freezer failures. Contingency plans have not been adequately documented.	**Minor**

Human Tissue Act 2004 Standards

Standard	Inspection findings	Level of shortfall
C1 Consent is obtained in accordance with the requirements of the Human Tissue Act 2004 (HT Act) and as set out in the code of practice		
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	Relevant material for research is stored in the -80˚C freezer alongside tissue for human application. Although the material is stored in a container, the DI has no oversight of whether the relevant material has research ethic approval (REC) or whether consent is in place for the storage of this material.	**Minor**

Advice

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

No.	Standard	Advice
1.	GQ2a	The DI is advised to ensure incident reporting is included in the Quality Manual.
2.	PFE2c	The DI is advised to write the expiry date of the cleaning reagents on the bottles.
3.	PFE2d	The DI is advised to provide staff with safety goggles for use when handling reagents or cleaning the clean room.
4.	PFE4a	The DI is advised to re-design the checklist for the release of tissue to include the medical practitioner's signature.
5.	PFE5c	The DI is advised to label each temperature-monitoring device so that it is clear which fridge each device is linked to.
6.	PFE5c	The DI is advised to consider the use of swabs to supplement the environmental monitoring in the pass-through hatches.
7.	PFE5c	The DI is advised to periodically test the temperature alarm system to assure themselves that all staff know how to respond to any temperature excursions.

Concluding comments

There are a number of areas of practice that require improvement, including one critical, nine major shortfalls, and three minor shortfalls; the latter includes one shortfall against the standards relevant to the Human Tissue Act (2004). The critical shortfall relates to the requirement to improve governance of quality management which was highlighted in the last

inspection and continues to be lacking.

The major shortfalls were related to issues identified with the functioning of the clean room and having appropriate measures in place to monitor the quality and safety of tissues during processing; ensuring tissues were stored at the appropriate temperature; monitoring the temperature of fridges and freezers; capturing all procedures in ratified SOPs; ensuring that the 3CS meets the required standards of quality and safety for imported tissues; the gowning procedures and the absence of ongoing refresher training; the absence of regular and effective internal audits; storage of raw data; the scope of risk assessments; the procedures for the release of tissue and the validation of transport kits. The minor shortfalls relate to the absence of a risk assessment for the premises and facilities; the absence of contingency arrangements in case of equipment failure and for having no oversight of the consent status of the relevant material stored under the Human Tissue Act.

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: 18 September 2018

Report returned from DI: 2 October 2018

Final report issued: 8 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: 13 February 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.

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

Consent

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.

Human Tissue Act 2004 Standards

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 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 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 breach in the relevant Codes of Practices, the HT Act and other relevant professional and statutory guidelines;

or

A shortfall which indicates a failure to carry out satisfactory procedures 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.

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.