

**Site visit inspection report on performance against HTA quality standards
Royal Victoria Infirmary
HTA licensing number 11122**

Licensed for the

- **procurement, processing, testing, storage, distribution import import/export of human tissues and cells for human application under the Human Tissue (Quality and Safety for Human Application) Regulations 2007, and the**
- **storage of relevant material which has come from a human body for use for a scheduled purpose other than transplantation under the Human Tissue Act 2004**

29 November to 1 December 2011

Executive Summary

A site visit inspection of Royal Victoria Infirmary (the establishment) was carried out by the HTA from 29 November to 1 December 2011.

The establishment was found to meet the majority of the HTA standards. However, some shortfalls were identified across the areas of: consent; governance and quality; and premises, facilities and equipment. Any particular examples of strengths or good practice are included in the concluding comments section of the report.

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

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

Background to the establishment and description of inspection activities undertaken

The Newcastle Upon Tyne Hospitals NHS Foundation Trust holds a licence that covers an establishment based in The Royal Victoria Infirmary (hub site), with two satellite sites at the Freeman Hospital and the Newcastle BioManufacturing Facility in the Centre for Life.

This was the third site-visit inspection of the establishment undertaken by the HTA. The first inspection was undertaken prior to the satellite sites and their associated activities coming under the authority of the licence held by the hub site. During the second inspection, in April 2010, the inspection team identified a large number of shortfalls against HTA standards, leading to the addition of 13 conditions to the licence. This third inspection was scheduled to assess progress in meeting the conditions, as well as conducting a review of all activities. All conditions that were in place on the licence at the time of the inspection were considered to be fully met, or if almost met could be removed and addressed through a Corrective and Preventative Action (CAPA) plan.

The establishment undertakes the following activities:

- Procurement, processing, testing, distribution and storage of haematopoietic stem cells (HSC): Peripheral Blood Stem Cells (PBSC), Bone Marrow (BM), Donor Lymphocyte Infusions (DLI), and Cord Blood (CB)
- Storage of bone (morcellised bone, femoral heads and struts)
- Storage of heart valves
- Storage and distribution of iliac vessels
- Procurement of articular cartilage for autologous chondrocyte implantation (ACI; this rare activity has not taken place since the last inspection)
- Procurement and testing of limbal stem cells (LSC; this activity was not taking place at the time of the inspection because it was awaiting clinical trial authorization).
- Procurement and testing of cells for use as starting materials for Advanced Therapy Medicinal Products (ATMPs).

All areas of licensable activity were inspected, including: the clean room facility used for open processing of cells; the cryostorage facility used to store PBSC, BM and DLI; the theatres within which procurement of BM and LSC takes place; the paediatric and adult oncology units where apheresis procurement of PBSC and DLI takes place; the maternity department where CB procurement takes place; the cryostorage facility used for cells for starting and raw materials to manufacture ATMPs; and the storage facilities within the theatre suites for iliac vessels, bone and heart valves.

An audit trail of traceability was completed for:

- PBSC, CB and BM. Horizontal and vertical audits were carried out from consent and procurement, through testing and processing, distribution, to storage and end use or disposal.
- Bone, heart valves, and iliac vessels. Horizontal and vertical audits on the traceability of tissue in storage from receipt to storage and end use/disposal were carried out.

No audits of traceability were undertaken for ACI, LSC or tissues and cells procured for ATMPs because there has been no procurement activity for these cell types since the

previous inspection.

Meeting the HTA's licensing standards

The HTA developed its licensing standards with input from its stakeholders, in order to ensure the safe and ethical use of human tissue. The HTA expects licensed establishments to meet these standards.

This is an exception-based report: only those standards that have been assessed as not met are included. Where the HTA determines that a licensing standard is not met, the level of the shortfall will be classified as 'Critical', 'Major' or 'Minor' (see Appendix 3: Classification of the level of shortfall).

Unless otherwise advised, the establishment is required to inform the HTA within 14 days of the receipt of the final report of the corrective and preventative actions that will be taken to ensure that the improvements are addressed. A template for this purpose is provided as a separate Word document.

Please see Appendix 2: Human Application standards, to view all human application standards. Standards which do not apply to this licence are highlighted in Appendix 2.

HTA standards not met

Consent

Standard	Inspection findings	Level of shortfall
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.	The information leaflets provided by those obtaining consent for donation of LSC, BM and PBSC do not detail the benefits of the resulting transplant, nor the donor testing that will be undertaken.	Minor
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 and Code of Practice on Consent.	Not all members of staff taking consent for adult and paediatric PBSC procurement have undertaken training in the procedure. This has led to records of consent being incomplete and erroneous.	Minor
b) Training records are kept demonstrating attendance at training on consent.		

Governance and Quality

Standard	Inspection findings	Level of shortfall
GQ1 All aspects of the establishment's work are supported by ratified documented policies and procedures as part of the overall governance process.		
g) There are procedures to ensure that an authorised person verifies that tissues and / or cells received by the establishment meet required specifications.	The receipt procedures for HSCs and heart valves are not clearly documented or recorded, so that authorised members of staff verify that acceptance specifications have been met.	Minor

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.	Not all those removing bone from storage for end use have received adequate training in the procedures relating to record keeping. This has led to errors and ambiguous data.	Minor
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.	Some records have been amended in ways not following the Trusts policy on record keeping, including overwriting and scribbling out. This has led to ambiguous records.	Minor
GQ6 A coding and records system facilitates traceability of bodies, body parts, tissues and cells, ensuring a robust audit trail.		
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.	The traceability of CB from donor to storage is not complete, because the donor identity is not recorded on the records of processing or storage. Instead, the establishment has been relying on the surname of the baby and the date of procurement.	Minor

Premises, Facilities and Equipment

Standard	Inspection findings	Level of shortfall
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.	The written procedures for environmental monitoring within the Grade A environment used for open processing of HSCs do not provide instructions relating to when settle plates and contact plates are used. In addition, no in-process particle monitoring is being undertaken, though it is during process simulations twice yearly.	Minor

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.	The processing of HSCs is undertaken by members of staff wearing gloves with the cuffs under the sleeves of the suits, and without the use of oversleeves covering the gap between the gloves and the suits. This risks contamination of cells, as is shown by the detection of skin commensals on glove prints used during environmental monitoring. This is a major shortfall in the carrying out of licensable activities because it poses an indirect risk to the safety of a recipient of processed cells.	Major
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.	The temperature probes used for monitoring the bone freezer are not calibrated, leading to digital and graphical records that differ by several degrees, meaning there is uncertainty as to the storage temperature attained.	Minor

Advice

Below are matters which the HTA advises the DI to consider.

No.	Standard	Advice
1.	C1b	The HTA advises the DI to ensure that Third Party Agreements with procurers of CB are updated prior to the next procurement at each Relative Third Party Premises with the improved agreement template incorporating provision for periodic revision.
2.	GQ1b	The HTA advises the DI to continue with the process of ratification of documented Standard Operating Procedures (SOPs) for Paediatric PBSCs and Bone storage.
3.	GQ1c	The HTA advises the DI to hold regular meetings, which are recorded by agendas and minutes, with all Persons Designated on the licence, so that overarching Quality Management issues can be better managed.
4.	GQ1d	The HTA advises the DI to ensure that instructions posted on fridges and freezers used to store tissue are incorporated into a document control system as version controlled documents.
5.	GQ1l	The HTA advises the DI to put in writing what would happen to tissues and cells stored under the authority of the licence in the event of termination of activities for whatever reason.
6.	GQ2b	The HTA advises the DI to ensure that the results from the current schedule of high-level audits are used to inform audits of processes and records, focussing

		on higher risk areas.
7.	GQ4h/i	The HTA advises the DI to amend the instructions relating to retention of raw data so that it is clear that they should be retained for 10 years after use, disposal or expiry of tissues or cells. Although this is stated in the establishment's quality procedures, it is contradicted by stating that freezer and refrigeration charts must be retained for 11 years; for example, charts for a freezer used to store cells for 10 years prior to disposal must be stored for 20 years in total.
8.	GQ4m	The HTA advises the DI to put in writing what would happen to records of traceability in the event of termination of activities for whatever reason.
9.	GQ8d	The HTA advises the DI to assess the risks associated with the absence of NAT testing for CB units stored within the establishment, where retesting of donors has not been carried out and to decide their fate with respect to completing the testing. A documented assessment should be made respecting the risks of transmission of infections from donors to recipients, cross contamination or mix-up.
10.	PFE2c	The HTA advises the DI to implement a schedule for defrosting and cleaning the freezer within which bone is stored, to reduce the risk of contamination, and the risk of malfunction due to excessive build-up of frost.
11.	PFE3a	The HTA advises the DI to monitor closely the temperature of the area within which Dimethyl Sulfoxide is stored, so that it does not fall below that specified by the manufacturer.
12.	PFE3c	The HTA advises the DI to receive regular reports relating to the testing of temperature alarms associated with iliac vessel, bone and heart-valve storage.

Concluding comments

The establishment is unusual in that it undertakes many licensable activities with a wide range of tissues and cells in multiple departments across three sites, including hospital and university buildings under the oversight of one DI. Nevertheless, since the last inspection the DI has overseen the provision of an overarching quality management system, with the help of the establishment's Quality Manager. Many SOPs, that were before local to each group working under the licence, have been centralized using Quality Management Database software and are efficiently governed by the Quality Manager under the supervision of the DI. This has led to substantial improvements in the governance of the establishment, and raised quality and safety standards across many areas. This is reflected in the removal of the additional conditions that were placed on the licence following the previous inspection. The establishment is working towards Joint Accreditation Committee ISCT EBMT (JACIE) accreditation.

The BioManufacturing Facilities at the Centre for Life and in the Haematopoietic Stem Cell Laboratory within the Royal Victoria Infirmary have succeeded in being licensed for the manufacture of Investigative Medicinal Products from cells for clinical trials of Advanced Therapy Medicinal Products. Therefore, only the donation, procurement and donor testing of the cellular starting materials for these products falls under the authority of the HTA licence under the Quality and Safety Regulations.

At the time of inspection, the consent forms used for CB, LSCs and HSCs did not describe adequately the serological and viral testing that would be undertaken on the donor's blood.

This has since been rectified and has been made very clear.

At the time of inspection some licensable testing, i.e. NAT testing of donors, was not undertaken on either licensed premises or under the authority of a Third Party Agreement. This has since been rectified with an appropriate Third Party Agreement between the establishment and the establishment that undertakes NAT testing. This NAT testing was not complete for donors of cord blood at the time of inspection, as only hepatitis C was tested. Since the inspection all cord blood donors are additionally tested using NAT for hepatitis B and HIV.

Other areas of good practice were noted during the HTA inspection. These included:

- the use of information booklets provided by the Children's Cancer and Leukaemia Group
- improved records of consent training incorporating an online training programme
- the use of validated procedures for CD3/CD19 depletion leading to better clinical outcomes for mismatched donors and recipients of HSCs
- all of the temperature controlled storage areas for tissues and cells have been fitted with alarm systems that dial-out to members of staff on a 24 hour basis
- the movement of tissues or cells between the hub and satellite sites is undertaken by couriers and is covered by a third party agreement setting out the responsibilities of each party.

Report sent to DI for factual accuracy: 21 December 2011

Report returned from DI: 05 January 2012

Final report issued: 27 January 2012

CAPA Plan Closure Statement:

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: 28 September 2012

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Appendix 1: HTA inspection process

The Human Tissue Authority (HTA) regulates the removal, storage, and use of human bodies, body parts, organs and tissue for activities such as research, transplantation, and education and training. The legal requirements for establishments which carry out such activities are set out in the Human Tissue Act 2004 and The Human Tissue Act 2004 (Ethical Approval, Exceptions from Licensing and Supply of Information about Transplants) Regulations 2006.

The HTA is also the designated Competent Authority for the purposes of the European Union Tissue and Cells Directives (the Directives) so far as they relate to tissues and cells for use in human application (using tissues and cells for patient treatment). On 5 July 2007 the Human Tissue (Quality and Safety for Human Application) Regulations 2007 (the Regulations) came into force. The Regulations formally transposed the Directives into UK law. Under the Regulations the HTA regulates and licences the procurement, testing, processing, storage, distribution, import or export of tissues or cells intended for human application. The HTA has produced detailed Directions to complement the implementation of the Directives.

As part of the regulatory framework, the HTA licenses establishments and undertakes inspections to assess compliance with expected standards.

Inspections

We use the term 'inspection' to describe when we:

- visit an establishment to meet with staff, view premises and facilities, and review policies and procedures (a site-visit inspection); or
- assess written information we have requested from an establishment (a desk-based assessment / inspection).

We carry out inspections to assess if the Designated Individual (DI) is suitable to supervise the activity covered by the licence, as it is their responsibility to ensure that:

- other staff working under the licence are suitable;
- suitable practices are used when carrying out the activity;
- the conditions of the licence are met;
- the conditions of third party agreements are met; and
- the information and confidentiality requirements set down in the Regulations are complied with.

We also need to be satisfied that the licence applicant or holder, the establishment's premises, and the practices relating to licensed activities, are suitable.

To help us reach our decisions, we have developed standards under four headings: Consent; Governance and Quality; Premises, Facilities and Equipment; and Disposal.

After every site visit inspection, we write a report documenting our findings. Where we find a particular standard is not fully met, we will describe the level of the shortfall as 'Critical', 'Major' or 'Minor'. In most cases, it will be the responsibility of the DI to seek the HTA's agreement on how they will address the identified shortfalls. More information about the classification of shortfalls can be found in Appendix 3.

The majority of our site-visit inspections are announced. If we have concerns about an establishment, we can also undertake an unannounced site visit inspection.

You can find reports for site visit inspections which took place after 1 November 2010 on our website.

Appendix 2: HTA Standards

Standards which are not applicable to this establishment have been highlighted.

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.

Appendix 3: Classification of the level of shortfall

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

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

1. Critical shortfall:

A shortfall which poses a significant direct risk of causing harm to a recipient patient or to a living donor,

or

A number of 'major' shortfalls, which individually do not pose a direct risk of harm to a recipient or living donor, 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 or 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/or cells.

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 at the time of the next inspection.

Follow up actions

A template corrective and preventative action plan is available as a separate Word document. 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.