Site visit inspection report on compliance with HTA minimum standards

Warwick Hospital

HTA licensing number 22543

Licensed for the

- **Procurement and distribution of human tissues and cells for human application under the Human Tissue (Quality and Safety for Human Application) Regulations 2007**

17 July 2014

Summary of inspection findings

Warwick Hospital (the establishment) was selected to receive a themed inspection. The themes selected for 2014/15 include quality management, risk management and procurement of tissues and cells. Since the previous inspection, Warwick Hospital has begun using the next generation therapeutic apheresis system. Hence, in addition to the themes, the HTA reviewed the establishment's compliance with HTA standards relating to training.

The establishment was found to have met all HTA standards relating to each theme and the HTA standards relating to training.

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

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

The HTA's regulatory requirements

The HTA must assure itself that the Designated Individual, Licence Holder, premises and practices are suitable.

The statutory duties of the Designated Individual are set down in Section 18 of the Human Tissue Act 2004. They are to secure that:

- the other persons to whom the licence applies are suitable persons to participate in the carrying-on of the licensed activity;
- suitable practices are used in the course of carrying on that activity; and
- the conditions of the licence are complied with.

The HTA developed its licensing standards with input from its stakeholders. They are designed to ensure the safe and ethical use of human tissue and the dignified and respectful treatment of the deceased. The HTA inspects the establishments it licences against four groups of standards:

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

However, a themed inspection may be carried out on establishments which have been found previously to represent a lower risk. Themes target Standards which the HTA has identified as common shortfalls across the human application sector in 2012/13. The themes selected for 2014/15 are outlined in the table below.

Themes	**HTA Standards**
Quality management	
Standard operating procedures for licensed activity	GQ1(b)
Document control system	GQ1(d)
Quality Management System – continuous and systematic improvement	GQ1(c) GQ2(a)-(c)
Internal audit system for licensable activities	
Contingency Planning	
Plan to ensure records of traceability are maintained for 10 or 30 years as required.	GQ4(m)
Risk Management	
Procedures for the identification, reporting, investigation and recording of adverse events and reactions	GQ7(a),(f)
Risk assessments of processes and premises	GQ8(a)-(d) PFE1(a)
Traceability	GQ4(e)*,(f)*,(i) GQ6(a)-(c) PFE4(d)** D2(a)

Procurement*	
Equipment is appropriate for use and regularly maintained	PFE3(a) PFE5(a),(b),(c),(e),(f),(g),(k)
Packaging, labeling and agreement for distribution are suitable	PFE4(f),(h),(i),(j)

* = relevant to establishments licensed for procurement only
** = relevant to establishments licensed for storage for end use only

In addition to the standards listed above, the HTA will follow-up on any other issues that have arisen since the establishment's last inspection.

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.

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

Tissue type	Procurement	Processing	Testing	Storage	Distribution	Import	Export
PBSC	**E**				**TPA**		

Background to the establishment and description of inspection activities undertaken

Warwick Hospital (HTA licensing number 22543) is licensed for the procurement of peripheral blood stem cells and their distribution. The hospital is part of the West Midlands Strategic Clinical Network for Cancer which was set up in April 2013 and covers a population of around one million. The establishment has been accredited by JACIE (Joint Accreditation Committee-International Society for Cellular Therapy & European Group for Blood and Marrow Transplantation) since 2006.

Clinicians at University Hospital Coventry seek consent for autologous stem cell treatment and refer patients to the Aylesford Unit at Warwick Hospital for apheresis. Clinicians also inform the HTA licensed establishment based in Birmingham, which is responsible for donor testing, processing and storage of stem cells. All infusions into patients take place at University Hospital Coventry.

The establishment undertakes around 45 harvests for autologous use each year. Clinicians at University Hospital Coventry mobilise patients and monitor the level of CD34+ cells, which is indicative of the level of circulating stem cells. Patients come to the Aylesford Unit at Warwick Hospital when their CD34+ counts are satisfactory.

Staff at the unit seek consent for the apheresis procedure and take consent for donor virology testing on a blood sample on the day of donation. Staff also undertake a documented pre-collection patient assessment before they begin the apheresis procedure.

Staff monitor the temperature of the room where consumables such as apheresis kits, saline and the anticoagulant ACD-A are stored.

Apheresis staff at Warwick Hospital received training in the use of a new apheresis machine last year. Staff undertook two harvests under supervision, before routinely using the new machine. A consultant haematologist is always available for advice and the patient is continuously monitored by specialist nurses during the procedure. It is standard practice to provide patients with calcium carbonate tablets to reduce the chance of complications due to the use of the anticoagulant ACD-A (Acid-Citrate-Dextrose Formula A) which helps maintain the fluidity of the blood circulating through the apheresis machine.

The establishment responsible for donor testing, processing and storage of stem cells sends labels with a unique ISBT (International Society Blood Transfusion) identifier to Warwick Hospital, which is used to label stem cell harvests and plasma collections. At the end of the harvest, the bag of stem cells and a bag containing plasma are labelled and placed in a validated transport box for collection by a designated courier. Staff track the pick-up and delivery of cells to the establishment where processing and storage of stem cells takes place. The establishment routinely takes samples for blood cultures before and after apheresis; the rationale for this practise is that it will contribute to root cause analysis, should, for example, a stem cells harvest be found to be contaminated.

The DI and apheresis staff attend regular meetings which cover the apheresis service at Warwick Hospital. The DI and key staff also attend regular Bone Marrow transplantation quality meetings held at University Hospital Coventry, which cover apheresis activities at Warwick Hospital and the establishment where stem cells are processed and stored. All stem cells harvests are audited in order to improve practices. Cleaning of the Aylesford Unit is in accordance with a high risk protocol as it is regarded as a ‘high risk’ area. Weekly audits of cleaning are undertaken by the Cleaning Supervisor.

A themed inspection of Warwick Hospital was undertaken on 17th July 2014. This is the third inspection of the establishment, which was selected for a themed inspection because the HTA believes that the nature of the licensed activity is lower in risk compared with activities taking place under HTA licences at other establishments. In addition to the themes, the HTA reviewed staff training, particularly in relation to training in the use of the new apheresis and cell collection platform. The inspection included visual inspection of the premises, discussions with the DI, consultant haematologist, corporate licence holder contact and the Lead Nurse for the Apheresis Service.

A document review was carried out. Documents reviewed included: the Third Party Agreement with the courier; maintenance agreements; SOPs relating to reporting and investigating adverse events and reactions; meeting minutes; training records, including competency assessments; contingency arrangements for the provision of apheresis; audit schedule; risk assessments; complaints procedure; review of adverse incidents and investigations; and transport logs of collection and delivery of stem cell harvests.

An audit trail of a stem cell harvest was undertaken. The review included the consent form, referral form from University Hospital Coventry which specifies the target minimum CD34+ level, pre-harvest patient assessment undertaken at Warwick Hospital, consent form for donor virology testing on the day of the harvest, patient record of the collection process,

transport receipt form, donor test results and harvest reports provided by the establishment which processes the cells which includes bacteriological tests done on the stem cell harvest. There were no discrepancies but it was noted that several entries were overwritten (see advice and guidance in the following section of this report).

Inspection findings

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

Compliance with HTA standards

All applicable HTA standards have been assessed as fully met.

Advice

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

No.	Standard	Advice
1.	GQ1	Some written records reviewed during the inspection were amended by overwriting. The DI is advised to remind staff that records should be amended by striking a line through the erroneous entry and signing the amendments so that the person who made it can be identified. The DI is also advised to audit written records in order to capture incidents when records are overwritten.
2.	GQ3	The DI is advised to ensure that all relevant staff are formally 'signed off' in the use of the new apheresis machine. Staff received detailed training in the operation of the new apheresis system before it was implemented. However, the trainer has not formally 'signed off' competency records for some members of staff.
3.	GQ8	The establishment has risk assessed many procedures. The DI is advised to consider extending the use of risk assessments to capture risks relating to changes to procedures; for example, implementing the use of the new temperature logger.

Concluding comments

The staff at the unit work well together as a team. The DI has very good oversight of licensable activities as he has extensive experience in apheresis as well as technical expertise relating to laboratory analysis. The audit programme is very effective, and the close links between the transplant unit at University Hospital Coventry, Warwick Hospital and the establishment where stem cells are processed and stored, helps to ensure the quality and safety of the stem cells.

Since the last inspection, Warwick Hospital has begun to use the next generation therapeutic apheresis system and staff were provided with relevant training in operating the system.

The HTA has given advice to the Designated Individual with respect to staff training records relating to the next generation apheresis system, the amendment of written records and the use of risk assessments to capture risks relating to changes to procedures.

The HTA has assessed the establishment as suitable to be licensed for the activities specified.

Report sent to DI for factual accuracy: 12 August 2014

Report returned from DI: 21 August 2014

Final report issued: 28 August 2014

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

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.
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.
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.
GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills.
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.
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.
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.
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.
GQ5 There are documented procedures for donor selection and exclusion, including donor criteria.
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.
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.
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.
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.
c) The premises have sufficient space for procedures to be carried out safely and efficiently.
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.
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.
PFE4 Systems are in place to protect the quality and integrity of tissues and / or cells during transport and delivery to its destination.
f) There are third party agreements with courier or transport companies to ensure that any specific transport conditions required are maintained.
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.
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.
k) There are contingency plans for equipment failure.

Disposal

Standard
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.

Appendix 2: Classification of the level of shortfall (HA)

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

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

1. **Critical shortfall:**

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

   Or

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

   A critical shortfall may result in one or more of the following:

   (1) A notice of proposal being issued to revoke the licence

   (2) Some or all of the licensable activity at the establishment ceasing with immediate effect until a corrective action plan is developed, agreed by the HTA and implemented.

   (3) A notice of suspension of licensable activities

   (4) Additional conditions being proposed

   (5) Directions being issued requiring specific action to be taken straightaway

2. **Major shortfall:**

   A non-critical shortfall.

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

   or

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

   or

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

or

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

or

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

In response to a major shortfall, an establishment is expected to implement corrective and preventative actions within 1-2 months of the issue of the final inspection report. Major shortfalls pose a higher level of risk and therefore a shorter deadline is given, compared to minor shortfalls, to ensure the level of risk is reduced in an appropriate timeframe.

3. **Minor shortfall:**

A shortfall which cannot be classified as either critical or major and, which can be addressed by further development by the establishment.

This category of shortfall requires the development of a corrective action plan, the results of which will usually be assessed by the HTA either by desk based review or at the time of the next inspection.

In response to a minor shortfall, an establishment is expected to implement corrective and preventative actions within 3-4 months of the issue of the final inspection report.

Follow up actions

A template corrective and preventative action plan will be sent as a separate Word document with both the draft and final inspection report. You must complete this template and return it to the HTA within 14 days of the issue of the final report.

Based on the level of the shortfall, the HTA will consider the most suitable type of follow-up of the completion of the corrective and preventative action plan. This may include a combination of

- a follow-up site-visit inspection
- a request for information that shows completion of actions
- monitoring of the action plan completion
- follow up at next desk-based or site-visit inspection.

After an assessment of your proposed action plan you will be notified of the follow-up approach the HTA will take.