Australian Government

Department of Health and Ageing

THERAPEUTIC GOODS ACT 1989
Section 10

THERAPEUTIC GOODS ORDER NO. XX - *Standards for human ocular tissue*

I, Rohan Hammett, delegate of the Minister for Health and Ageing for the purposes of section 10 of the *Therapeutic Goods Act 1989* (the Act) and acting under that section, having consulted with the Therapeutic Goods Committee in accordance with subsection 10(4) of that Act, HEREBY:

DETERMINE that the matters specified in this Order shall constitute a standard for human ocular tissue.

Dated this ….. day of ……. 2011

Rohan Hammett
Delegate of the Minister for Health and Ageing

1. Name of Order

This Order may be cited as Therapeutic Goods Order No. XX Standards for human ocular tissue.

2. Commencement

This Order commences on the day after the day it is registered on the Federal Register of Legislative Instruments.

3. Purpose of this Order

The purpose of this Order is to specify the minimum technical requirements for the safety and quality assurance for a biological that is a human ocular tissue.

4. Interpretation

(1) For the purpose of this Order, the presence of the term "must" in relation to a particular requirement in a provision set out in this Order means that the requirement is to be complied with at all times.

(2) In this Order:

allogeneic use means use of a biological that is removed from one person and applied to another.

asystole means the reference time for cardiac death. A documented pronounced time of death is used as asystole when life-saving procedures have been attempted and there were signs of, or documentation of, recent life (e.g. agonal respirations, pulseless electrical activity). If death was not witnessed, 'asystole' must be determined by the last time known alive. Asystole will be 'cross clamp time' if the tissue donor was also a solid organ donor.

bioburden has the same meaning as in "bioburden" in subsection 3(1) of the Therapeutic Goods Act 1989, as amended from time to time.

biological has the same meaning as "biological" in subsection 3(1) of the Therapeutic Goods Act 1989 as amended from time to time.

Note that "biological" under the Act means:

(1) Subject to subsection (3), a biological is a thing that:

(a) either:

(i) comprises, contains or is derived from human cells or human tissues; or

(ii) is specified under subsection (2); and

(b) is represented in any way to be, or that is, whether because of the way in which it is presented or for any other reason, likely to be taken to be:

(i) for use in the treatment or prevention of a disease, ailment, defect or injury affecting persons; or

(ii) for use in making a medical diagnosis of the condition of persons; or

(iii) for use in influencing, inhibiting or modifying a physiological process in persons; or

(iv) for use in testing the susceptibility of persons to a disease or ailment; or

(v) for use in the replacement or modification of parts of the anatomy in persons.

(2) The Secretary may, by legislative instrument, specify things for the purposes of subparagraph (1)(a)(ii).
(3) The Secretary may, by legislative instrument, determine that a specified thing is not a biological for the purposes of the Act;

cell(s) means individual cells or a collection of cells when not bound by any form of connective tissue.

collection means the process of removing a biological or a source of a biological from a donor.

container has the same meaning as in "container" in subsection 3(1) of the *Therapeutic Goods Act 1989*, as amended from time to time.

critical material means all components, materials or supplies which could have a direct impact on the quality, safety and function of the end product.

cryopreserved means suspended in a validated medium containing a suitable cryoprotectant and cooled according to a validated method that allows maintenance for long periods.

donor means every source, whether living or deceased, of blood, blood components, cells or tissues.

manufacture – manufacture has the same meaning as in 'manufacture' in subsection 3(1) of the *Therapeutic Goods Act 1989*, as amended from time to time.

microbial means microorganisms including, but not limited to, bacteria, fungi, Mycoplasma and Rickettsia but does not include viruses or prions.

minimal manipulation means a process involving any of the following actions:
(a) centrifugation;
(b) trimming, cutting or milling;
(c) flushing or washing;
(d) refrigeration;
(e) freezing;
(f) any similar thing to a thing mentioned in paragraph (a), (b), (c), (d) or (e).

recipient means a person who receives blood, blood components, cells or tissues by infusion or implantation.

storage means the process of maintaining a substance, material or product under appropriate controlled conditions.

tissue means all constituent parts of the body formed by cells.

transport means transfer within or between premises of a substance, material or product under appropriate controlled conditions.

5. Application of this Order

(1) The requirements of this Order apply to biologicals that are human ocular tissue, including the eye globe, cornea or sclera, collected from

(a) living human donor(s) intended for allogeneic use; or

(b) deceased human donor(s) intended for allogeneic use.

(2) This Order specifies requirements for biological and other therapeutic goods that are critical materials used in the manufacture of biologicals in subsection 5(1).

6. Exemptions

(1) Biologicals exempt from the requirements set out under this Order are the following:

(a) human ocular tissue that is a biological and to which an exemption from compliance with this Order in relation to the supply of the ocular tissue has been granted by the Secretary in accordance with section 14 and 14A of the Act; and

(b) ocular cells and tissue samples biopsied for the purpose of an *in vitro* diagnosis and not for manufacture and/or reintroduction or transplant to a recipient; and

(c) human ocular tissue that is processed beyond minimal manipulation; and

(d) amniotic membrane that may be used for therapeutic ocular procedures.

7. General requirements

(1) Critical materials employed in the collection and manufacture of ocular tissue must be of a design, composition, quality and safety to protect the quality and safety of the ocular tissue.

(2) Collection of ocular tissue from a deceased donor must occur no more than 24 hours after asystole and the time intervals between death, enucleation, preservation and/or corneal excision must be recorded.

(3) Ocular tissue must be stored as follows:

(a) an eye globe in a moist chamber system at 2°C to 8°C for no more than 48 hours; or

(b) excised cornea in a corneal storage medium at 2°C to 8°C for no more than 14 days; or

(c) excised cornea maintained in culture medium at 28°C to 37°C for no more than 30 days; or

(d) excised cornea maintained in a cryopreservation medium between minus 75°C to minus 196°C for up to 2 years; or

(e) non-viable ocular tissue in accordance with conditions and duration specified for the chosen preservation medium and justified by validated data or documented evidence from the scientific literature.

(4) For ocular tissue that is excised cornea preserved according to subsection 7(3)(c), a subsequent exposure to transport medium at a temperature validated to maintain tissue quality must not exceed 5 days.

(5) The culture medium of ocular tissue preserved in accordance with subsection 7(3)(c) must be tested for microbial contamination using a validated test method prior to transfer of the tissue to transport medium

(6) Evidence of any microbial contamination after testing of the storage medium under subsection 7(5) must result in discard of tissue that has not been released for supply to a recipient.

(7) For tissue that has already been released and supplied to a recipient, and where there is evidence of microbial contamination, results of the microbial tests must be reported to the transplanting surgeon.

(8) Ocular tissue must be sealed within a sterile container and packaged and sealed so as to

(a) prevent ingress/egress of material other than for a gas sterilant (if applicable);

(b) ensure any breach of integrity will be evident.

(9) If terminal sterilisation is performed on the ocular tissue, the manufacturing process must comply with the requirements of Annex 1 of the Code of GMP for Sterile Medicinal Products, available on the TGA website http://www.tga.gov.au/industry/manuf-pics-gmp-medicines.htm#technical.

8. Examination and evaluation of ocular tissue

(1) Examination and evaluation of ocular tissue must be in accordance with the requirements of Section 10 of the '*Eye Bank Association of Australia and New Zealand (EBAANZ). EBAANZ Medical and Quality Standards for Eye Donation and Eye Tissue Banking. Edition 2, April 2009.'* Available through the EBAANZ website < http://ebaanz.org/page_9.html>