HFEA Statutory Approvals Committee

25 July 2013

Finsbury Tower, 103-105 Bunhill Row, London, EC1Y 8HF

Minutes – Item 1

Centre 0119 (Birmingham Women's Hospital) – PGD application for Lethal Multiple Pterygium Syndrome (LMPS) OMIM #253290

Members of the Committee:	Committee Secretary:
David Archard (lay) Chair	Lauren Crawford
Sue Price (professional)	
Rebekah Dundas (lay) (teleconference)	Legal Adviser:
Jane Dibblin (lay)	Tom Rider, Field Fisher Waterhouse
Hossam Abdalla (professional)	

Declarations of Interest: Members of the Committee declared that they had no conflicts of interest in relation to this item.

The following papers were considered by the Committee

- Executive Summary
- PGD Application Form
- Redacted Peer Review
- Genetic Alliance Opinion
- Additional redacted email from peer reviewer
- Additional email from centre
- 'CHRNG genotype-phenotype correlations in the multiple pterygium syndromes,' Vogt et al, Journal of Medical Genetics, 2012; 49:21-26 doi:10.1136/jmedgenet- 2011-100378

The Committee also had before it

- HFEA Protocol for the Conduct of Licence Committee Meetings and Hearings
- 8th edition of the HFEA Code of Practice
- Human Fertilisation and Embryology Act 1990 (as amended)
- Decision trees for granting and renewing licences and considering requests to vary a licence (including the PGD decision tree); and
- Guidance for members of Authority and Committees on the handling of conflicts of interest approved by the Authority on 21 January 2009.
- Guidance on periods for which new or renewed licences should be granted
- Standing Orders and Instrument of Delegation

- Indicative Sanctions Guidance
- HFEA Directions 0000 – 0012
- Guide to Licensing
- Compliance and Enforcement Policy
- Policy on Publication of Authority and Committee Papers
- HFEA Pre-Implantation Diagnostic Testing ("PGD") Explanatory Note For Licence Committee

Discussion

1. The Committee had regard to its Decision Tree. The Committee noted that the Centre is licensed to carry out PGD. The Committee was also satisfied that the Centre has experience of carrying out PGD and that generic patient information about its PGD programme and associated consent forms had previously been received by the HFEA.

2. The Committee noted that the Centre's proposed purpose of testing the embryos was as set out in paragraph 1ZA(1)(b) of schedule 2 of the Act, ie. 'where there is a particular risk that the embryo may have any gene, chromosome or mitochondrion abnormality, establishing whether it has that abnormality or any other gene, chromosome or mitochondrion abnormality'.

3. The Committee noted that multiple pterygium syndrome, lethal type is caused by three distinct gene mutations all of which result in the same lethal condition and all of which are classified under the same OMIM number, #253290. The application submitted by centre 0119 references the variant with the gene specific gene locus for only one of the mutations that cause the condition (OMIM #100730): the centre has a patient with this form of the disorder waiting for treatment. However, the centre has since confirmed to the Executive by telephone and email that they wish to test for all three mutations that result in the multiple pterygium syndrome, lethal phenotype (OMIM #253290).

4. The Committee noted that multiple pterygium syndrome lethal form (LMPS, OMIM #253290) is inherited in an autosomal recessive pattern. There is therefore a 1 in 4 chance of the embryo being affected by this condition if both parents are carriers.

5. The Committee noted that LMPS is usually fatal in the second or third trimester of pregnancy and in those cases where an affected baby is born with this condition, it will not survive. LPMS is characterized by webbing of the skin at the joints (pterygium) and limited muscle movement (akinesia) in babies. Affected babies will have a number of the following abnormalities: a build up of excess fluid (hydrops fetalis) or a fluid-filled sac found on the back on the

neck (cystic hygroma); severe muscle weakness and multiple joint contractures which limit the movement of joints; underdevelopment of the heart, lungs, and brain; twisting of the intestines; kidney abnormalities; cleft palate; and an under developed head (microcephaly). In many cases there is a hole in the muscle between the abdomen and chest cavity of the baby. If an affected baby is born, it will not survive with these abnormalities.

6. The Committee noted that treatments for less severe types of multiple pterygium syndrome exist but there is no treatment offered for LMPS because it has a lethal prognosis. It is not uncommon for women to seek the option of termination of pregnancy when they receive a prenatal diagnosis for this condition.

7. Although this application relates only to multiple pterygium syndrome lethal type, the Committee noted the comments from the Peer Review that mutations in one of the genes which causes the lethal variant of multiple pterygium syndrome can also cause the nonlethal (Escobar) variant of this phenotype (EVMPS; 265000).

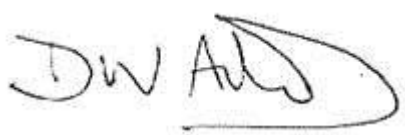
8. The Committee considered that multiple pterygium syndrome lethal type is serious because affected babies die either prenatally or shortly after birth.

9. The Committee noted that the application is supported by the Peer Reviewer and the Genetic Alliance UK.

10. The Committee had regard to its explanatory note and noted that on the basis of the information presented, given the condition's worst symptoms, it was satisfied that there is a significant risk that a person with the abnormality will have or develop a serious physical or mental disability, a serious illness or any other serious medical condition. The Committee was therefore satisfied that the condition meets the criteria for testing under paragraph 1ZA(1)(b) of Schedule 2 to the Act.

11. The Committee agreed to authorise the testing of embryos for multiple pterygium syndrome lethal form (LMPS, OMIM #253290). The Committee confirmed that this condition will be added to the published list of condition for which PGD may be carried out.

Signed: Date: 30/07/2013



David Archard (Chair)