Statutory Approvals Committee - minutes

Centre 0102 (Guys Hospital) – PGD application for 46XY Sex Reversal 6 OMIM #613762

Thursday, 28 January 2016

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

Committee members	David Archard (Chair) Rebekah Dundas (Deputy Chair) Sue Price Margaret Gilmore Anthony Rutherford	
Members of the Executive	Trent Fisher	Secretary
External adviser	Dr Jenny Carmichael	
Legal Adviser	Tom Rider	Fieldfisher
Observers	None	

Declarations of interest:

- members of the committee declared that they had no conflicts of interest in relation to this item.

The committee had before it:

- 8th edition of the HFEA Code of Practice
- standard licensing and approvals pack for committee members

The following papers were considered by the committee:

- executive summary
- PGD application form
- five supporting articles
- email clarification from centre
- redacted peer review
- Genetic Alliance opinion

1. Consideration of application

1.1. 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.

1.2. The committee noted that the condition being applied for is not on the approved PGD condition list.

1.3. The committee noted that the proposed purpose of testing the embryos was as set out in paragraph 1ZA(1)(b) of schedule 2 of the Act, i.e. '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'.

1.4. The committee noted that the condition is inherited in an autosomal dominant pattern and there is a 1 in 2 chance of an embryo inheriting the mutation in the MAP3K1 gene where the mother is a carrier of the condition. Embryos with the mutation and 46XX chromosomes will develop normally as females, but may be considered as carriers. Patients with the mutation and 46XY chromosomes will be affected by the sex reversal phenotype. Thus there is a 1 in 4 chance of having an affected child in each pregnancy.

1.5. The committee noted that the role of the MAP3K1 gene is to determine whether the gonads become testes when the default pathway of the embryonic gonad is to become an ovary. Mutations in this gene alter the balance in the sex-determining pathways. Symptoms of this condition will only affect males and females will not exhibit symptoms.

1.6. The committee noted that the condition is a sex development disorder resulting in the internal reproductive organs and external genitals not developing as expected in individuals with a 46XY genotype.

1.7. The committee noted that symptoms range from penile hypospadias to moderate virilisation or ambiguous genitalia. Other symptoms of the condition include complete or partial malformation of the testes or ovaries, risk of gonadal tumour formation and infertility.

1.8. The committee noted that the penetrance of the condition is hard to determine due to the small number of cases reported. Symptoms may be visual at birth or apparent as the individual enters puberty.

1.9. The committee noted that there is no curative treatment for the condition, but that treatment for symptoms which includes a combination of surgical intervention and hormone treatment. The infertility aspect of the condition cannot be treated.

1.10. The committee noted that the application is consistent with the Peer Review.

1.11. The committee welcomed the advice of its specialist adviser, Dr Jenny Carmichael, who confirmed that the condition is as described in the papers and added that there would be significant implications for mental health for affected individuals.

2. Decision

2.1. The committee considered that the condition is serious due to the symptoms the present, lack of any curative treatment and the impact on an individual's mental health.

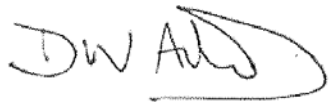
2.2. The committee had regard to its explanatory note and noted that on the basis of the information presented, given the condition's worst symptoms, it was satisfied that there is a significant risk that a person with the abnormality will have or develop a serious physical or mental disability, a serious 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) and (2) of Schedule 2 to the Act.

2.3. The committee agreed to authorise the testing of embryos for 46XY Sex Reversal 6, OMIM #613762

3. Chair's signature

3.1. I confirm this is a true and accurate record of the meeting.

Signature



Name

David Archard

Date

10 February 2016