Statutory Approvals Committee – minutes

Centre 0044 (The Centre for Reproductive and Genetic Health)

Pre-implantation Genetic Diagnosis (PGD) application for Hereditary Haemorrhagic Telangiesctasia Type 2 (HHT2), OMIM #600376

Thursday, 30 November 2017

HFEA, 10 Spring Gardens, London, SW1A 2BU

Committee members	Margaret Gilmore (Chair) Anne Lampe Anthony Rutherford Bobbie Farsides	
Members of the Executive	Bernice Ash Dee Knoyle Frances Metcalf-Head	Committee Secretary Committee Secretary (Observing) Inspections and Logistics Officer (Observing)
External adviser	Professor Peter Turnpenny	
Legal Adviser	Philip Grey	Mills & Reeve LLP
Observers		

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
- Redacted Peer Review
- Genetic Alliance UK Statement
- Minutes of the Licence Committee on 29 November 2012 which approved Hereditary Haemorrhagic Telangiectasia, OMIM #187300, as a condition for which PGD can be applied

1. Consideration of application

1.1. The committee welcomed the advice of its Specialist Adviser, Professor Peter Turnpenny, who confirmed that the condition was as described in the papers.

1.2. The committee noted that the description in the application for Hereditary Haemorrhagic Telangiectasia Type 2 (HHT2) OMIM #600376, is consistent with the peer review.

1.3. The committee noted that the Genetic Alliance opinion provided a patient perspective and supported the application

1.4. 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.

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

1.6. 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'.

1.7. The committee noted that the condition is inherited in an autosomal dominant pattern which means there is a 50% chance of an embryo being affected with the condition, if either parent has a relevant mutation.

1.8. HHT2 is caused by mutations in the ACVRL1 gene. It is characterised by frequent blood vessel malformations, notably multiple arteriovenous malformations (AVMs). AVMs are tangled blood vessels that cause abnormal direct connections between arteries and veins, lacking the intervening capillaries. The most common manifestation is spontaneous and recurrent nosebleeds (epistaxis) beginning on average at age 12 years.

1.9. Telangiectases (small AVMs) can often be found on the lips, tongue, face, chest, and fingers. The most significant manifestation of this condition are large AVMs, which can occur in the lungs, liver, or brain. Associated complications (haemorrhage, strokes and transient ischaemic attacks) from bleeding or shunting of blood may be sudden and catastrophic. Pulmonary AVMs (in the lungs) can cause life threatening complications, including chronic pulmonary hypertension for which the only curative treatment is organ transplantation. The severity of this condition is variable, up to 95% develop recurrent nosebleeds and telangiectases. GI (gastro-intestinal) bleeding occurs in around 25% of affected individuals. Pulmonary AVMs occur in approximately 30%-50% of individuals with HHT.

1.10. Treatment options are not curative, nosebleeds are treated with humidification nasal lubricants, haemostatic products, laser ablation, sclerotherapy, nasal closure, and oral or topical medications. GI bleeding is treated with iron replacement therapy and (if needed) endoscopic ablation, surgical resection of bleeding sites, and/or medical therapy. Patients who are known to be affected can be offered screening, but it is very difficult to know when to intervene (for example with neurosurgery), as the intervention itself also carries significant risks. There is lower quality of life for affected individuals compared to those in the general population. It can include pain/discomfort and anxiety/depression.

1.11. The committee noted the inspectorate's request to consider whether Hereditary Haemorrhagic Telangiectasia Type 2 (HHT2) OMIM #600376, should be approved for inclusion on the PGD List. The committee agreed to consider the application on this basis.

2. Decision

2.1. The committee considered that Hereditary Haemorrhagic Telangiectasia Type 2 (HHT2) OMIM #600376 is serious given that there is a significant and unpredictable risk of devastating, severe health problems, debilitating complications such as strokes, the need for onerous treatments, and the unpredictable threat of sudden death, from an early age. There is no cure for the condition other than organ transplantation (if suffering from pulmonary hypertension).

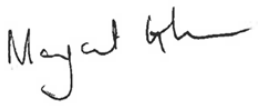
2.2. The committee had regard to its explanatory note and confirmed that, on the basis of the information presented, it was satisfied that there is a particular risk that an embryo may have the abnormality in question and that there is a significant risk, given the condition's worst symptoms, that a 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 Hereditary Haemorrhagic Telangiectasia Type 2 (HHT2) OMIM #600376, meets the criteria for testing under paragraph 1ZA(1)(b) and (2) of Schedule 2 of the Act.

2.3. The committee agreed to authorise testing for Hereditary Haemorrhagic Telangiectasia Type 2 (HHT2) OMIM #600376.

3. Chair's signature

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

Signature



Name

Margaret Gilmore

Date

19 December 2017