Statutory Approvals Committee – minutes

Item 3

Centre 0201 (Edinburgh Assisted Conception Unit)

Pre-implantation Genetic Diagnosis (PGD) application for Dilated Cardiomyopathy 1G, OMIM #604145 and Cardiomyopathy Familial Hypertrophic 9, OMIM 613765

Thursday, 30 May 2019

HFEA Medway Meeting Room, Level 2, 10 Spring Gardens, London, SW1A 2BU

Committee members	Margaret Gilmore (Chair) Bobbie Farsides (Deputy Chair) Tony Rutherford Rachel Cutting	
Members of the Executive	Moya Berry Catherine Burwood Debbie Okutubo Nora Cooke-O'Dowd	Committee Secretary Licensing Manager (Observer) Governance Manager (Induction) Head of Research & Intelligence (Induction)
Specialist Adviser	Dr Alison Male	
Legal Adviser	Ros Foster	Browne Jacobson LLP

Declarations of interest

- Anne Lampe declared a conflict of interest with item 3 and withdrew from discussion during this part of the meeting
- There were no conflicts of interest declared by the other members of the committee

The committee had before it:

- 9th 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
- Statutory Approvals Committee Minutes - 26 May 2016 - Dilated Cardiomyopathy and Left Ventricular Noncompaction 5, OMIM #613426
- Statutory Approvals Committee - Minutes 24 September 2015 - PGD application for Dilated Cardiomyopathy type 1A, OMIM #115200
- Statutory Approvals Committee Minutes - 27 August 2015 - PGD application for Dilated Cardiomyopathy 1Y, OMIM #611878
- Statutory Approvals Committee Minutes - 11 Dec 2014 – PGD application for Familial Hypertrophic Cardiomyopathy types 1, 3,7 and 10
- Statutory Approvals Committee Minutes – 25 September 2014 – PGD application for Cardiomyopathy caused by mutations in TROPONIN T2 gene (TNNT2), OMIM #191045

1. Consideration of application

1.1. The committee noted the advice of the specialist adviser that the conditions referred to and jointly presented within the application were materially different and should not be considered together. The committee proceeded to review the application in respect of Dilated Cardiomyopathy first as it was understood that a patient was awaiting a decision in relation to that condition.

Dilated Cardiomyopathy, OMIM #604145

1.2. The committee welcomed the advice of its specialist adviser, Dr Alison Male.

1.3. The committee noted that the description in the PGD application for Dilated Cardiomyopathy IG, OMIM #604145, was consistent with the peer review.

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

1.5. The committee noted that the Genetic Alliance UK statement provided a perspective on the impact of the condition on patients, their families and carers.

1.6. 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.

1.7. 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'.

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

1.9. The committee noted all causes of cardiomyopathy generally have penetrance of less than 100%. Penetrance differs greatly between families, even those that have the same mutation.

1.10. Dilated Cardiomyopathy 1G is a genetic condition caused by a mutation in the TTN gene. With Dilated Cardiomyopathy 1G, the walls of the heart chambers, notably the left ventricle,

become weakened and the heart does not contract and pump blood efficiently, leading to heart failure. Conduction defects are also seen and can lead to arrhythmia and sometimes cardiac arrest, leading to sudden death.

1.11. There is no cure for this condition, but the committee noted the advice of the specialist adviser who explained that there are certain treatments that may modify the course of the disease. Medication can alleviate the symptoms of heart failure. Pacemakers and implanted defibrillators can also help some arrythmias, but these may not be able to prevent death, which can be sudden and unpredicted. There is also an increased risk of stroke in people with atrial fibrillation. Penetrance may be as high as 95% over the age of 40 years.

1.12. The committee noted the inspectorate's request to consider Dilated Cardiomyopathy 1G OMIM #604145, for inclusion on the list of conditions approved for PGD. The committee agreed to consider the application on this basis.

2. Decision

2.1. The committee received advice from the specialist adviser who stated that the conditions Dilated Cardiomyopathy IG OMIM #604145 and Cardiomyopathy Familial Hypertrophic 9, OMIM #613765 referred to in the application were materially different and should not be considered together under one PGD application.

2.2. The committee noted from the PGD application form that there appeared to be a patient waiting for treatment in relation to Dilated Cardiomyopathy 1G OMIM #604145 and as such the committee decided only to review this condition.

2.3. The committee advised that if the centre wished to pursue an application for Cardiomyopathy Familial Hypertrophic 9, OMIM #613765, this should be done by way of a separate application.

2.4. In respect of the application for Dilated Cardiomyopathy 1G OMIM #604145, the committee considered that it did not have sufficient information available to make an informed decision at this current time. It agreed that in order for the application to be progressed, the committee would require further information to be provided with regard to:

- mortality and morbidity rates for Dilated Cardiomyopathy IG, and how these rates differ between families where the condition is known and where it is undiagnosed
- the management and effectiveness of treatments in diagnosed patients

2.5. The committee agreed that any additional information provided by the clinic should be subject to a review by a cardiologist with a special interest in cardiomyopathy and genetics.

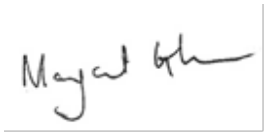
2.6. The committee also noted the peer reviewer's recommendation to include the suitability of a number of other types of dilated cardiomyopathy and familial hypertrophic cardiomyopathy for inclusion on the list of conditions approved for PGD. The committee agreed not to consider any other additional conditions as part of this application.

2.7. Therefore, the committee concluded that the application was adjourned for the separation of the PGD applications and the provision of further information in respect of any application for Dilated Cardiomyopathy 1G OMIM #604145.

3. Chairs signature

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

Signature



Name

Margaret Gilmore

Date

19 June 2019