Statutory Approvals Committee – minutes

Item 5

Centre 0102 (Guys Hospital)

Pre-implantation Genetic Diagnosis (PGD) application for Currarino Syndrome OMIM #176450

Thursday, 28 February 2019

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

Committee members	Margaret Gilmore (Chair) Bobbie Farsides (Deputy Chair) Emma Cave Rachel Cutting Ruth Wilde	
Members of the Executive	Moya Berry Dee Knoyle Catherine Burwood	Committee Secretary Committee Secretary (Observer) Senior Governance Manager (Observer)
Specialist Adviser	Dr Alan Fryer	
Legal Adviser	Sarah Ellson	Fieldfisher 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:

- 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

1. Consideration of application

1.1. The committee welcomed the advice of its Specialist Adviser, Dr Alan Fryer, who confirmed that the condition was as described in the papers.

1.2. The committee noted that the description in the PGD application for Currarino Syndrome, OMIM #176450, caused by a mutation in the MNX1 gene, was consistent with the peer review.

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

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

1.5. 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.

1.6. 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 Currarino Syndrome 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.

1.8. The committee noted penetrance of the condition is around 95%; however, Currarino Syndrome is extremely variable, even within families, and severity cannot be predicted from genotype. It has been reported that 39% of mutation carriers have a severe phenotype, 28.3% are clinically apparent, 28.3% are asymptomatic with X-ray changes only, and 4.4 % non-penetrant. Figures provided in the Peer Review differ slightly: 50% severe, 25% mild and 25% asymptomatic.

1.9. The condition is characterised by incomplete formation of the sacrum, the presence of teratoma, meningocele or cysts in front of the sacrum and abnormalities in the development of the rectum, anus, bladder and genitalia. Spinal cord tethering may occur which stretches nerves to the lower limbs, bladder and bowel affecting their function. Cancer incidence is increased. Surgical intervention, which itself carries risk, can be used to lessen the impact of developmental malformations but can still leave problems such as a permanent stoma and faecal and/or urinary incontinence.

1.10. There is no cure for the condition, but early recognition may improve outcomes. Surgery can be performed but some patients may still have a poor outcome.

1.11. The committee noted the quality of life for these patients is likely to be affected both physically and psychologically if the need for cancer treatment or surgery arises.

1.12. The committee noted the inspectorate's request to consider whether Currarino Syndrome, OMIM #176450 should be approved 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 considered that, in the worst-case scenario Currarino Syndrome, OMIM #176450 is a serious condition due to its multiple symptoms, early onset with risk of death in childhood, ongoing risk of developing cancer and poor prognosis even with surveillance. It may significantly impact on the quality of life.

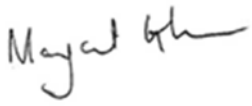
2.2. The committee had regard to its explanatory note and confirmed that, on the basis of the information presented, it was satisfied that there is a particular risk that an embryo may have the abnormality in question and that there is a significant risk, given the conditions' worst symptoms, that a person with the abnormality will have or develop a serious physical disability, a serious illness or any other serious medical condition.

2.3. The committee was therefore satisfied that Currarino Syndrome, OMIM #176450 meets the criteria for testing under paragraph 1ZA(1)(b) and (2) of Schedule 2 of the Act and agreed to authorise testing.

3. Chairs signature

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

Signature



Name

Margaret Gilmore

Date

14 March 2019