Statutory Approvals Committee – minutes

Centre 0102 (Guy's Hospital)

Pre-implantation Genetic Diagnosis (PGD) application for

Early-Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276

Thursday, 29 June 2017

Church House Westminster, Dean's Yard, Westminster SW1P 3NZ

Committee members	Margaret Gilmore (Chair) Anne Lampe Ruth Wilde Bobbie Farsides	
Members of the Executive	Bernice Ash Paula Robinson	Secretary Head of Planning & Governance
External adviser	Dr Ed Blair	
Legal Adviser	Ros Foster	Browne Jacobson 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
- One additional paper submitted with the application (Am J Hum Gen 99, 1368, December 1, 2016)

- Redacted peer review
- Minutes of one previous Statutory Approvals Committee meeting

1. Consideration of application

1.1. The committee welcomed the advice of its specialist adviser, Dr Ed Blair, who confirmed that the condition was as described in the papers.

1.2. The committee noted that the description in the application for Early-onset Epileptic Encephalopathy (EOEE) with optic atrophy caused by a mutation in AP3B2, OMIM #617276 is consistent with the peer review.

1.3. The committee noted that at the time the application was submitted, a Genetic Alliance opinion was not available to support the application. The committee noted that the amount of published data on this condition was limited to two single papers, one of which related to eight affected families located across the world. The committee's specialist adviser confirmed that the results reported in the paper were statistically significant.

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 recessive manner which means there is a 25% chance of having an affected child in each pregnancy, if either parent has a relevant mutation.

1.8. Early onset epileptic encephalopathies are a group of disorders characterised by profound cognitive, sensory and motor impairment associated with severe, often difficult to treat, seizures. Presentation is usually before the age of 1 year, on the background of previous seemingly normal development. With the onset of seizures, development usually plateaus or regresses. While development usually progresses if reasonably good seizure control is achieved, it is usually at a very slow pace leading to profound global developmental delay. The condition is fully penetrant.

1.9. The committee noted that other symptoms include severe visual impairment, hypotonia, microcephaly, abnormal movements and feeding difficulties. Speech is generally absent and many individuals are unable to sit or walk. Affected individuals may also be at risk of complications such as scoliosis, aspiration and recurrent pneumonia, resulting in a high likelihood of a shortened life span.

1.10. The committee noted there is currently no curative treatment for Early-onset Epileptic Encephalopathy (EOEE) with optic atrophy caused by a mutation in AP3B2. Affected children will have lifelong dependence and will require constant care.

1.11. The committee noted that the condition initially applied for by the Person Responsible (PR) was Early onset Epileptic Encephalopathy (EOEE) with optic atrophy caused by a mutation in AP3B2. The centre has subsequently confirmed the condition they wish to apply for corresponds to OMIM #617276: Epileptic Encephalopathy, Early Infantile, 48; EIEE48. The Executive suggested that, if approved by the committee, the condition be added to the HFEA website as 'Early Infantile

Epileptic Encephalopathy (EIEE) 48, OMIM #617276', which follows the naming format used for the EIEE subtypes already approved.

1.12. The committee noted the inspectorate's request to consider whether Early Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276 should be approved for inclusion on the PGD list. If approved, the condition would be named as Early Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276 which is consistent with the information published by OMIM. The committee agreed to consider the application on this basis.

2. Decision

2.1. The committee considered that Early Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276 is serious given the early onset and the impact on quality of life of this condition, including severe sensory and cognitive impairment, seizures, likelihood of shortened lifespan and the lack of a cure. The committee considered the impact on the family caring for affected individuals.

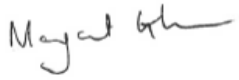
2.2. The committee had regard to its explanatory note and noted that on the basis of the information presented, given the condition's worst symptoms, it was satisfied that there is a significant risk that a person with the abnormality will have or develop a serious physical or mental disability, a serious illness or any other serious medical condition. The committee was therefore satisfied that the condition of Early Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276 does meet the criteria for testing under paragraph 1ZA(1)(b) and (2) of Schedule 2 of the Act.

2.3. The committee agreed to authorise the testing for Early Infantile Epileptic Encephalopathy (EIEE) 48, OMIM #617276.

3. Chair's signature

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

Signature



Name

Margaret Gilmore

Date

25 July 2017