Statutory Approvals Committee – minutes

Centre 0035 (Oxford Fertility)

Pre-implantation Genetic Diagnosis (PGD) application for

Benign Familial Neonatal Seizures (BFNS1), OMIM #121200

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 Alan Fryer	
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
- Redacted peer review
- Additional paper provided by the peer reviewer - Grinton et al (Epilepsia, 56(7):1071–1080, 2015)

- Genetic Alliance opinion
- Additional information provided by the centre in response to the peer reviewer's comments
- Further comments by the peer reviewer

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 application for Benign Familial Neonatal Seizures (BFNS1) OMIM #121200 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 manner which means there is a 50% chance of having an affected child in each pregnancy, if either parent has a relevant mutation.

1.8. The committee noted the condition is a rare form of neonatal epilepsy. Seizures can begin within the first days of life and usually within two months of birth. The condition usually involves frequent episodes of seizures, which disappear spontaneously within a few months of life.

1.9. The committee noted that the seizures are usually unprovoked and may be generalised (affecting the whole of the brain) or focal (affecting part of it) tonic-clonic convulsions, where the patient may experience stiffness, loss of consciousness and jerking. Patients' subsequent development is usually normal but seizures can recur, so that there is a greater risk of epilepsy later in life than that which occurs in the general population. As identified in the peer review, the penetrance of this condition has been reported as 77%.

1.10. Seizures can be treated using antiepileptic medication. The need for drugs depends on the severity of seizures. Multiple drugs may be needed to control the symptoms in some cases.

1.11. The committee noted that the peer reviewer had indicated that the application had failed to demonstrate how the condition met the statutory requirement that there is significant risk that a person with the abnormality will have or will develop a serious physical or mental disability, a serious illness or any other serious medical condition and had failed to address the issues of genetic heterogeneity associated with KCNQ2 variants. The centre had provided comments, in response to the comments raised by the peer reviewer, but the committee considered that these did not directly address the concerns raised.

1.12. The committee noted the inspectorate's recommendation to consider whether Benign Familial Neonatal Seizures (BFNS1), OMIM #121200 should be approved for inclusion on the PGD list. If approved, the condition would be named as Benign Familial Neonatal Seizures (BFNS1), OMIM

#121200 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, in considering the worse case scenario of the symptoms associated with the condition and taking into account the treatment options available, concluded that the statutory test requirement that there is significant risk that a person with the abnormality will have or will develop a serious physical or mental disability, a serious illness or any other serious medical condition, of seriousness, which would allow the committee to licence a condition for PGD, was not met.

2.2. The committee acknowledged that the condition was initially difficult and distressing to manage in the early days after birth, but noted that it was self-limiting, with the majority of affected infants becoming seizure free within the first few months of life. The committee noted that there was a 15% chance that an affected individual may have epilepsy in later life, but that treatment using standard anti-epileptic medication was generally effective in seizure control after the neonatal period.

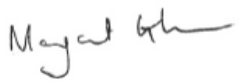
2.3. The committee had regard to its explanatory note and noted that on the basis of the information presented, given the condition's worst symptoms, it was not satisfied that there is a significant risk that a person with the abnormality will have or develop a serious physical or mental disability, a serious illness or any other serious medical condition. The committee was therefore not satisfied that the condition of Benign Familial Neonatal Seizures (BFNS1), OMIM #121200 meets the criteria for testing under paragraph 1ZA(1)(b) and (2) of Schedule 2 of the Act.

2.4. The committee therefore accordingly refused to authorise the testing for Benign Familial Neonatal Seizures (BFNS1), OMIM #121200.

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