Statutory Approvals Committee – minutes

Centre 0102 (Guys Hospital)

Pre-implantation Genetic Diagnosis (PGD) application for

Cleidocranial Dysplasia (CCD), OMIM #119600

Thursday, 26 October 2017

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

Committee members	Margaret Gilmore (Chair) Anne Lampe Anthony Rutherford Bobbie Farsides	
Members of the Executive	Dee Knoyle Bernice Ash Susanna Nyarko-Parkin	Committee Secretary Committee Secretary (Observing) Governance Officer (Observing)
External adviser	Dr Mary Porteous	
Legal Adviser	Jane Williams	Mills & Reeve LLP
Observers	Gerard Hanratty	Browne Jacobson LLP

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
- Comment from Centre on Peer Review
- Genetic Alliance opinion
- Patient's Comment
- Five additional papers submitted with the redacted Peer Review

1. Consideration of application

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

1.2. The committee noted that the description in the application for Cleidocranial Dysplasia (CCD), OMIM #119600 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 having an affected child in each pregnancy, if either parent has a relevant mutation.

1.8. CCD is an inherited skeletal disorder that mainly affects the skull and clavicle (collar bone) and is also associated with various dental problems. It can occur spontaneously, but in most cases it is inherited. Symptoms are mainly noted between infancy and teenage years.

1.9. Common symptoms of CCD include abnormally large, wide-open features of the skull at birth that may remain open throughout life. The result is that the forehead is broad and flat and the skull broad and short. Abnormal dentition, including delayed eruption of secondary dentition, failure to shed the primary teeth, variable numbers of supernumerary teeth along with dental crowding, and misalignment between the teeth of the two dental arches can also occur. Other symptoms include hand abnormalities such as tapering fingers and short, broad thumbs. Individuals with the condition can have mid-face underdevelopment of the upper jaw and a cone-shaped thorax with narrow upper thoracic diameter. Additional symptoms can also include poor or absent air-filled cavities of the paranasal, frontal, and mastoid sinuses, widening of the sacroiliac joints and large femoral neck, osteoporosis, and potential hearing loss. Signs and symptoms of CCD can vary widely in severity and it is difficult to predict how severe the condition is going to be.

1.10. Even though there is treatment available for some of the symptoms/features, it is important to note that treatment will not cure most of the symptoms but rather help manage symptoms of the condition. For the dental problems individuals can undergo dental procedures to address the issues. Cosmetic surgery can be considered though this is not always an option for every patient. If bone density is below normal, treatment with calcium and vitamin D supplementation is considered. Most patients would need lifelong follow up at various specialist services and some will need major surgery which may or may not be successful. Accumulation of symptoms and recurrent surgery may lead to the affected individuals having a significantly impacted quality of life.

1.11. The committee noted the inspectorate's request to consider whether Cleidocranial Dysplasia (CCD), OMIM #119600 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 Cleidocranial Dysplasia (CCD) is serious, given the significant risk that affected individuals will have a skeletal disorder that mainly affects the skull and collar bone and individuals have prominent malformation of the face and hands, osteoporosis and short statue. The age of onset is between infancy and teenage years. Individuals also have dental impairment and possible hearing loss. The committee considered that the accumulation of symptoms and the burden of treatment including recurrent surgery could severely impact on an individual's quality of life. The committee also considered the psychosocial impact on an individual with this condition living in today's society.

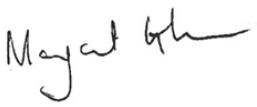
2.2. The committee had regard to its explanatory note and confirmed that, on the basis of the information presented, it was satisfied that there is a particular risk that an embryo may have the abnormality in question and that there is a significant risk, given the condition's worst symptoms, that a 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 Cleidocranial Dysplasia (CCD), OMIM #119600 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 Cleidocranial Dysplasia (CCD), OMIM #119600.

3. Chair's signature

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

Signature



Name

Margaret Gilmore

Date

16 November 2017