Statutory Approvals Committee - minutes

Centre 0044 (The Centre for Reproductive and Genetic Health)

Preimplantation Genetic Testing for Monogenic Disorders (PGT-M) application for Autosomal dominant autism spectrum disorder AUTS2 deficiency, OMIM #615834

Date:	29 July 2021
Venue:	HFEA, 2nd Floor, 2 Redman Place, London E20 1JQ via Microsoft Teams
Committee Members:	Margaret Gilmore (Chair) Emma Cave Anne Lampe Ruth Wilde
Specialist Adviser:	Professor Peter Turnpenny
Legal Adviser:	Sarah Ellson – FieldFisher LLP
Members of the Executive:	Moya Berry - Committee Officer Catherine Burwood - Licensing Manager (observer) Dee Knoyle – Committee Officer (observer)
Observers:	Jonathan Herring – HFEA Authority Member
Apologies:	No apologies were received for the meeting.
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:

- HFEA Code of Practice 9th edition
- Standard Licensing and Approvals Pack

The following papers were considered by the committee:

- Executive Summary
- PGT-M Application form
- Redacted Peer review
- Genetic Alliance (UK) statement
- Supporting Document - Yi Liu et al, 2015
- Supporting Document - Palumbo et al, 2021

1. Consideration of application

1.1. The committee welcomed the advice of its specialist adviser, Professor Peter Turnpenny, who confirmed that the condition was as described in the papers.

1.2. The committee noted that the description in the PGT-M application for Autosomal dominant intellectual disability and autism spectrum disorder, AUTS2 deficiency, OMIM #615834, is consistent with the peer review.

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

1.4. The committee noted that the OMIM website allocates OMIM #615834 to the condition Mental Retardation, Autosomal Dominant 26; MRD26. Following the nomenclature used by the OMIM website, and in line with normal practice, the condition name Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834 will be used henceforth.

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 PGT-M. The committee was also satisfied that the centre has experience of carrying out PGT-M and that generic patient information about its PGT-M 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 Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834, is inherited in an autosomal dominant manner, which means there is a 50% chance of an embryo being affected by the condition in each pregnancy if either parent has a relevant mutation.

1.9. The committee noted that the penetrance of the condition is unknown but thought to be very high. The expression is variable and some individuals are relatively mildly affected.

1.10. Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834, is characterised by significant global developmental delay leading to moderate to severe intellectual disability. Those affected can have hypotonia, feeding and breathing difficulties, microcephaly, and skeletal abnormalities, including, spinal abnormalities, and joint contractures. Some of those affected will have seizures, heart defects and hernias.

1.11. There is no curative treatment for the condition and treatment focuses on the management of behavioural, educational, developmental and health needs.

1.12. The committee noted the executive's request to consider Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834, for inclusion on the list of conditions approved for PGT-M. The committee agreed to consider the application on this basis.

2. Decision

2.1. The committee considered that, in the worst-case scenario, Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834, is a severe and incurable neurodevelopmental condition that presents in early childhood. Those affected may suffer severe intellectual disability and global developmental delay requiring life-long support and care. The committee noted the potentially devastating physical and psychological impact on the quality of life of those living with this condition.

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 that a person with such an abnormality will, given the condition's worst symptoms, have or develop a serious physical disability, a serious illness, or any other serious medical condition.

2.3. The committee was therefore satisfied that the following condition meets the criteria for testing under paragraph 1ZA(1)(b) and (2) of Schedule 2 of the Act. The committee agreed to authorise testing for:

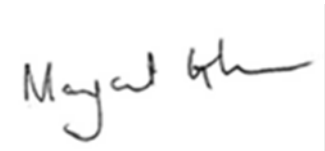
- Mental Retardation, Autosomal Dominant 26; MRD26, OMIM #615834

2.4. With regard to the revised nomenclature of the condition, the committee requested that the executive contact OMIM to establish whether the condition could be termed 'Intellectual disability, Autosomal Dominant 26' as it felt that the terminology used to describe the condition is an inappropriate narrative for those living with an intellectual disability.

3. Chair's signature

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

Signature



Name

Margaret Gilmore

Date

19 August 2021