Statutory Approvals Committee – minutes

Item 2
Centre 0201 (Edinburgh Assisted Conception Unit) Pre-implantation Genetic Diagnosis (PGD) application for Hereditary Leiomyomatosis and Renal Cell Cancer (HLRCC), OMIM #150800

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) Ruth Wilde Rachel Cutting Emma Cave	
Members of the Executive	Dee Knoyle Moya Berry Catherine Burwood	Committee Secretary Committee Secretary (Observer) Senior Governance Manager (Observer)
Legal Adviser	Sarah Ellson	Fieldfisher LLP
External adviser	Dr Alan Fryer	
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 application for PGD for Hereditary Leiomyomatosis and Renal Cell Cancer (HLRCC), OMIM #150800 is consistent with the peer review.

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

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 Hereditary Leiomyomatosis and Renal Cell Cancer 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. Penetrance for the condition is very high, near 100%, though severity varies: approximately 15% of affected people will develop renal cell cancer, 76% will develop cutaneous leiomyomata and almost all women develop uterine leiomyomata.

1.8. The committee noted that the condition causes multiple leiomyomas in the skin, which can be painful. The majority of affected individuals over the age of 40 years have developed cutaneous leiomyomas and these lesions have the potential to become malignant. Regular skin review by a dermatologist may be required (every 2 years). Treatment for leiomyomas if required is surgical which can be painful, leading to multiple scars.

1.9. Women affected by this condition also develop uterine leiomyomas (uterine fibroids), causing irregular, heavy periods, pelvic/back pain and sub/infertility. Uterine leiomyomas usually occur between the age of 18 to 52 years. Treatment includes medical therapies such as gonadotropin-releasing hormone agonists, antihormonal medications and pain relievers. These fibroids can become malignant (1%). Surgical removal of the fibroids may be required (myomectomy) or even hysterectomy in severe cases, leading to infertility.

1.10. Those affected are also at increased risk of developing kidney cancer which is typically aggressive in nature, difficult to treat and can lead to death. The average age of diagnosis is 44 years and in 80% of cases the cancer has spread by the time it has been detected. Nine out of 13 affected individuals die within five years of diagnosis. The earliest diagnosis researched was 11 years of age. Annual MRI scans are required to detect renal cell cancer at an early stage with the aim of improving prognosis. Recommended treatment is nephrectomy with adjuvant chemotherapy.

1.11. The symptoms of the condition and its treatment may have a negative impact on quality of life. There may also be psychological impact living with the condition, its effects and the associated risk of cancer could also be challenging.

1.12. The committee noted that there is no curative treatment for this condition.

1.13. The committee noted the inspectorate's request to consider whether Hereditary Leiomyomatosis and Renal Cell Cancer (HLRCC), OMIM #150800 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 Hereditary Leiomyomatosis and Renal Cell Cancer (HLRCC) is a serious condition given its early onset, fast progression, high penetrance and life -limiting, painful effect on the skin, kidneys and (where present) the uterus. The committee noted the condition affects both genders equally. There is no cure for this condition and treatment may involve surgical removal of multiple lesions, myomectomy or even hysterectomy in severe cases, leading to infertility. There is an increased risk of developing cancer, in particular renal cancer and removal of the kidney may be necessary with adjuvant chemotherapy. The committee considered the psychological impact of living with the condition, undergoing invasive treatment, and concern about developing an aggressive form of cancer which is difficult to treat and, in most cases, has a poor prognosis.

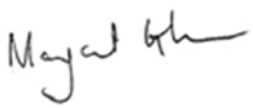
2.2. The committee had regard to its explanatory note and confirmed that, on the basis of the information presented, it was satisfied that there is a particular risk that an embryo may have the abnormality in question and that there is a significant risk, given the condition's worst symptoms, that a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

2.3. The committee was therefore satisfied that Hereditary Leiomyomatosis and Renal Cell Cancer (HLRCC), OMIM #150800 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