

Scenario 3

Embryo selection

The parents of a five year old girl who has leukaemia are pleading with the Assisted Reproduction Authority to be allowed to select an embryo that will produce a brother or sister who can save her life. In an Australian test case Leonard and Celeste Ryan want to use IVF combined with gene testing (Preimplantation Genetic Diagnosis or PGD) to create and genetically select embryos that are a match for their five year old daughter Sophie, who has acute lymphoblastic leukaemia. These services have recently become available at the Simfiscal Fertility Clinic.

Sophie has already undergone treatment including intensive chemotherapy, where drugs were injected into her bloodstream everyday during long hospital stays. "To have to watch your child suffer through this is every parent's nightmare," says Mrs Ryan "Sophie just wants to be like the other kids. Now that she has had a relapse the best chance for our Sophie is a cord blood cell transplant from a matched brother or sister". Mrs Ryan said that she and her husband wanted another child anyway, provided the child was healthy and if the child could help Sophie what a blessing that would be.

If approved, the Ryan's would create embryos using their own eggs and sperm via IVF. Following embryo screening, Celeste Ryan would have the 'selected embryo' (which would be matched to treat Sophie) implanted. If all goes well with the pregnancy, stem cells from the umbilical cord would be collected after the birth and infused into Sophie's blood stream. Despite sounding simple, recent statistics suggest that only one in five IVF cycles results in pregnancy. In a similar case, an American couple underwent four IVF treatment cycles, and of five suitable embryos only one survived.

In the ethical debate following the news of this proposal, critics have accused scientists of playing God in marrying genetic testing and IVF in this way and of creating "designer babies". Some ethicists expressed concern that this child will not be loved for itself but simply for the spare parts provided.

Dr Lance Simfiscal from the Simfiscal Fertility Clinic denies that this procedure is genetically engineering "designer babies". "It is about diagnosis, treatment and saving a life, we are not designing anything" Dr Simfiscal said. Sophie's father Leonard Ryan said, "it is very easy to conjure up all kinds of objections when you haven't been put on the spot yourself. The desire we have to help our little girl is one of the deepest human impulses and people shouldn't dismiss this so easily." They ask if when the embryo is being selected it could be a male embryo with matching tissue type to Sophie.

Issue

Imagine you are on the ethics committee hearing the Ryan's case. You have to make a decision on this procedure.

Questions

Here are some questions for you to consider in responding to the issue.

1. Is it acceptable to select and give birth to a child to save another child's life?
2. Should this procedure be passed by the committee?
3. The procedure is very expensive. Who do you think should pay the government or the parents?
4. Should the Ryan's be allowed to select the sex of their child?