NHSEED - - Economic Study or Review

PGD for all cystic fibrosis carrier couples: novel strategy for preventive medicine and cost analysis

Code: NHSEED-22011000093 **Year:** 2010 **Date:** 2010 **Author:** Tur-Kaspa I

Study design (if review, criteria of inclusion for studies)

Cost-benefit analysis

Participants

CF carrier-couples

Interventions

IVF with preimplantation genetic diagnosis (PGD)

Outcome measures

The amount spent to deliver healthy children for all CF carrier-couples by IVF-PGD was compared with the average annual and lifetime direct medical costs per CF patient avoided.

Main results

Treating annually about 4000 CF carrier-couples with IVF-PGD would result in 3715 deliveries of non-affected children at a cost of $57,467 per baby. Because the average annual direct medical cost per CF patient was $63,127 and life expectancy is 37 years, savings would be $2.3 million per patient and $2.2 billion for all new CF patients annually in lifetime treatment costs. Cumulated net saving of an IVF-PGD program for all carrier-couples for 37 years would be $33.3 billion. A total of 618,714 cumulative years of patients suffering because of CF and thousands of abortions could be prevented.

Authors' conclusions

A national IVF-PGD program is a highly cost-effective novel modality of preventive medicine and would avoid most births of individuals affected with debilitating genetic disease.

http://dx.doi.org/10.1016/j.rbmo.2010.04.031

See also

Reproductive BioMedicine Online YR: 2010 VL: 21 NO: 2 PG: 186-195

Keywords

Preimplantation Genetic Diagnosis_PGD; Prenatal Diagnosis; diagnostic procedures; non pharmacological intervention - diagn; Carrier Status; Heterozygote;