available, *frozen* for subsequent pregnancy attempts). The parents would specifically not be given any information about the number of eggs obtained, the number of embryos formed, the number surviving biopsy, the number in which diagnosis was successful, etc. In other words, no information would be given which might provide a basis for inferring whether or not any embryos with the Huntington gene were ever identified. Hence, parents would derive no direct or indirect information about their own genetic risk, while PGT, if performed accurately, could reduce the fetal risk to zero.

This approach to the management of Huntington disease offers potential benefits, but it raises several issues. Firstly, IVF with PGT would be offered to some couples in whom the parent at risk was actually unaffected and this could be construed as an inefficient or wasteful use of an expensive technology. However, since presymptomatic diagnosis is not the goal of the testing, redundant testing must be regarded as part of the cost of the disease prevention by this approach. Secondly, accurate diagnosis on single cells removed from embryo biopsy specimens is technically difficult, especially for other triplet repeat disorders such as fragile X,[5-7] and for dominant disorders where allele dropout is a particular risk. These concerns may be addressed through rigorous methodology, such as the replacement of embryos only when the independent amplification of two blastomeres gives concordant normal results, or the possible use of blastocyst (multicell) biopsy. Thirdly, scrupulous attention to confidentiality and accuracy of communication would obviously be required. None of these issues, however, would seem to be insurmountable.

In principle, the same conceptual approach may be applicable to other late onset dominant disorders such as Charcot-Marie-Tooth disease, certain familial cancers, and possibly even Alzheimer's disease. IVF and PGT would emerge as important approaches for the management of such diseases.

This proposal has important public health implications. In Huntington disease nearly all cases arise in families with pre-existing Huntington disease rather than as new mutations. These procedures therefore constitute a potentially effective strategy for greatly reducing or even eliminating Huntington disease from the population. IVF is now a widely accepted reproductive option. Normally, about two to three IVF cycles are required to achieve a live birth in the best programmes. Hence, for a reasonable social cost, a couple containing one member at risk for having the Huntington gene could, on average, be assured of having two unaffected children, and the risk of the disease in all future generations would be eliminated.

If this opportunity were to be provided on a voluntary basis to all couples at risk, the gene frequency in the population could over several generations be dramatically reduced. The costs in any given generation and the cumulative benefits and cost saving to all future generations would be gradually realised.

Mankind has succeeded in eradicating certain infectious diseases such as smallpox, which is now considered officially to be absent world wide. Perhaps it is not too early to consider the strategy outlined above and make the elimination of Huntington disease and other extremely deleterious dominant traits a goal for the 21st century.

Both prenatal testing and PGT are services provided by the Genetics & IVF Institutes. Both authors are employees of the Institute.

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Systematic reviews of screening

Systematic reviews of screening for various disorders are being commissioned by health authorities, including the National Health Service in Britain. These are often necessarily long and comprehensive and there is a risk that because of their length they may not be published in full, so that the detail and the full list of references used to produce the report will not be made generally available. The *Journal of Medical Screening* thinks that it would be valuable if such reviews, if of sufficient quality, were published in their entirety. In this issue we publish such a review from Murray and her colleagues on screening for fragile X. The journal would welcome other systematic reviews of screening.

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