

Ethical issues policy statement on Huntington's disease molecular genetics predictive test

The recommendations concerning the use of a predictive test for the early detection of Huntington's disease (HD) were drawn up by a committee consisting of representatives of the International Huntington Association (IHA) and the World Federation of Neurology (WFN). These were adopted by both organisations at their respective meetings in Vancouver, Canada, on 30 June 1989.

The European members of the Committee were: the late Chris de Somviele (Belgium), Dr Loe Went, Chairman (Netherlands), Dr Henri Petit (France), Carys Farmer-Little (France/UK), Kai Krahn (West Germany), and Audrey Tyler (Wales).

The North American members were: Dr Lynn Bates, Dr Arthur Falek, Dr Richard Myers, Dr Ntinos Myrianthopoulos, Dr Phillip Reilly (United States), Dr Michael Hayden, and Ralph Walker (Canada).

Introductory remarks

(1) The Committee is well aware of the fact that its recommendations are not enforceable. The current statement will be provided to appropriate national and

international institutions (national parliaments, national medical associations, EEC institutions, WHO, etc) for their use. The guidelines will require major changes once the gene for HD is specifically located on the short arm of chromosome 4 and sequenced, and will be revised regularly on the basis of new information.

The present document provides realistic ethical principles based on current knowledge and techniques in molecular genetics. As there is no way of knowing when the HD gene will be identified, and the predictive linkage test is currently in use in an increasing number of centres, it is appropriate to provide these guidelines to govern the application of the predictive test. The test should only be offered if all the recommended provisions are available.

(2) These recommendations are set forth by members of the HD family organisations and the biomedical community specifically knowledgeable about HD as guidelines to protect at risk subjects; therefore, it is of the utmost importance that such guidelines are at all times available to them so that they can freely make an informed decision.

(3) The Chairman of this Committee will seek appropriate information when requested, and will discuss with the Committee any difficulties arising from the application or the interpretation of these guidelines. The Committee may also be requested to examine and deliberate on actual cases of application of the test which are claimed to be contrary to the spirit of the guidelines.

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Recommendations

- 1 All persons who may wish to take the test should be given up to date, relevant information on the test in order to make an informed voluntary decision.
- 2 The decision to undertake the test is the sole choice of the person concerned. No requests from third parties, be they family or otherwise, shall be considered.
- 2.1 The test is only available to those having reached the age of majority (according to the laws of each country).

Comments

- 1 The highest standards of accuracy and of counselling should be available in each country.
- 2 The person must choose freely to be tested and not be coerced by family, friends, potential spouses, physicians, insurance companies, business concerns, governments, etc.
- 2.1 Prenatal and premarital tests may be an exception to this rule.

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| <p>2.2 Legal ownership of the stored DNA used for the test remains with the depositor; that of the test results remains with the person who requested it.</p> <p>2.3 All laboratories are expected to meet the same high standards of accuracy. They must also work with counsellors and other professionals providing the test service.</p> <p>2.4 Each participant should be able to take the test independently of his/her financial means.</p>
<p>3 The participant should be encouraged to select a partner to accompany him/her throughout all the different stages: the pre-test, the taking of the test, the delivery of results, and the post-test stage.</p> <p>3.1 This partner may be the spouse/companion, a friend, a social worker, or any person who has the confidence of the participant.</p> <p>3.2 The counselling unit should develop a follow up protocol that provides for support during pre- and post-test stages, whether or not a person chooses a partner.</p> <p>3.3 For applicants with evidence of a serious previous or current psychiatric condition, it may be advisable that testing be postponed and support services put into place.</p> <p>4 Testing and counselling should be given within specialised genetic counselling units knowledgeable about molecular genetic issues in HD, preferably within a university department. These centres should work in close collaboration with the lay organisation of the country.</p> <p>4.1 The laboratory performing the test should not communicate the final results to the counselling team until very close to the time such results are given to the participant.</p> <p>4.2 Under no circumstances shall any member of the counselling team or the technical staff communicate any information concerning the test and its results to third parties.</p> <p>4.3 The test centre should not establish direct contact with relatives whose blood is needed for the purpose of the test without the applicant's permission. All precautions should be taken when approaching such relatives.</p> <p>4.4 Tests should not be performed that provide diagnostic information about another person who has not requested the test, except in unique circumstances (see 5.2.6, and 5.4.4).</p>
<p>5 ESSENTIAL PRE-TEST INFORMATION TO BE PROVIDED TO THE PARTICIPANT</p> | <p>2.2 The consent form should address this issue. Local legal opinions may be helpful.</p>
<p>2.4 Each national lay organisation should use its influence by advocacy with government departments, public and private health insurers, etc, to reach this goal.</p>
<p>3.1 Initial data from the pilot studies indicate that the partner should not be another at risk person.</p> <p>3.2 Support should be available close to the person's community.</p>
<p>4 Often the DNA test will be conducted at a different site from the counselling centre. If no lay organisation exists in the country, the centre should contact the IHA.</p>
<p>4.1 The aim is to protect the participant from the possibility of counsellor bias at any time (see also comment 5.2.5).</p> <p>4.2 Only in the most exceptional circumstances, such as prolonged coma or death, should information about a test result be provided to the most appropriate family member.</p>
<p>5 'Essential information' means information that is absolutely vital to the whole test procedure.</p> |
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| <p>5.1 GENERAL INFORMATION</p> <p>5.1.1 On HD, including the wide range of its clinical manifestations, the genetic aspects, options for procreation, availability of treatment, etc.</p> <p>5.1.2 On the implications of non-paternity.</p> <p>5.1.3 On lay organisations, including their documentation, their addresses for help and social contacts, etc.</p> <p>5.2 INFORMATION PERTAINING TO THE TEST</p> <p>5.2.1 How the test is done.</p> <p>5.2.2 Need for DNA from other family members, including affected persons, and the possible problems arising from this.</p> <p>5.2.3 The limitations of the test (error rate, possibility of a non-informative result, etc).</p> <p>5.2.4 A raised risk will give no indication on the age of onset, the kind of symptoms, their severity, or the rate of progression.</p> <p>5.2.5 The predictive test provides an altered risk of whether someone has or has not inherited the gene, but does not make a current diagnosis of HD.</p> <p>5.2.6 The option to do an exclusionary molecular genetic analysis so that a 25% at risk person can be tested when the 50% at risk parent does not wish any information about him/herself. Such a test will provide the 25% at risk person with information that he/she has a low risk or a risk similar to the 50% at risk parent.</p> <p>5.3 INFORMATION ON CONSEQUENCES</p> <p>5.3.1 For the person him/herself.</p> <p>5.3.2 For the spouse/companion.</p> <p>5.3.3 For the affected parent and his/her spouse.</p> <p>5.3.4 For the other members of the participant's family.</p> <p>5.3.5 Socioeconomic consequences, including employment insurance, social security, data security, and other problems that may occur if the test results in an increased risk.</p> <p>5.4 INFORMATION ON ALTERNATIVES THE APPLICANT CAN ADOPT</p> <p>5.4.1 Not to take the test for the time being.</p> | <p>5.1 This information should be both written and oral.</p> <p>5.1.1 It must be pointed out that at this time neither prevention nor cure is possible.</p> <p>5.1.2 The possibility of non-paternity should not prevent the use of the test.</p> <p>5.1.3 If no lay organisation exists in the country, contacts can be made with the IHA or a lay organisation of a neighbouring country.</p> <p>5.2.2 A counsellor should inform the applicant of the importance of the need for cooperation of other family members.</p> <p>5.2.5 Particular care should be taken with participants who are believed to be showing early symptoms of HD; however, those with established, unacknowledged symptoms should not automatically be excluded from taking the predictive test even though counsellor bias will be present.</p> <p>5.2.6 The counsellor should do his/her utmost to ensure that the applicant requesting this type of test fully understands the implications and possible consequences. The most serious of these is if the 50% at risk parent develops HD; this will automatically mean that the 25% at risk person who was tested and was informed of having a similar risk to such a parent will now have a very high chance of developing HD.</p> <p>5.3 All consequences have to be discussed: an increased risk, a decreased risk, a non-informative result, as well as the consequences of not taking the test.</p> <p>5.3.2 If the partner of the participant is not his/her spouse/companion, special consideration should be given to such spouse/companion.</p> <p>5.3.3 The feelings of the affected parent, who may be made aware of the result, must be taken into account.</p> <p>5.3.4 Whatever information is obtained, it will influence the feelings of and the relationships with other relatives.</p> <p>5.4 'Alternatives' mean alternatives to taking the test after considering the essential pre-test information.</p> |
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- 5.4.2 To deposit DNA for research.
 - 5.4.3 To deposit DNA for storage for possible future use by family and self.
 - 5.4.4 DNA deposited under 5.4.2 above would be made available to the donor's family members at their request after the death of such donor if it is essential in order to obtain an informative result.
 - 5.4.5 In the case of DNA deposited under 5.4.2 and/or 5.4.3 above, the unit collecting the DNA must provide an official written declaration that samples will not be used for purposes other than specified in the said declaration with the exception of the provisions of 5.4.4.
- 6 ESSENTIAL PRE-TEST INFORMATION RE PRENATAL DIAGNOSIS
- 6.1 Any couple requesting prenatal diagnosis must be made aware of the fact that if they intend to complete the pregnancy whatever the result, there is little point in taking the test.
 - 6.2 Prenatal testing may be given in two situations: (1) where the parent knows his/her increased risk estimate for developing HD and (2) where the parent is at 50% risk and the presence of the gene can be either excluded or predicted at the same risk as that of the parent (50%; exclusion testing).
 - 6.3 A person who has already received an increased risk result should be accepted for prenatal testing of future children.
- 7 IMPORTANT PRE-TEST INFORMATION
- 7.1 Neurological examinations and psychological assessment are considered important to establish a baseline evaluation of each person.
 - 7.2 It is crucial to verify that the diagnosis of HD in the family of the applicant is correct.
 - 7.3 Psychosocial support and counselling must be available before the test procedure commences.
 - 7.4 Any other specialised medical tests are *always* non-compulsory; refusal may not affect participation in the test.
- 8 THE TEST AND DELIVERY OF RESULTS
- 8.1 Excluding exceptional circumstances, there should be a certain interval between giving the pre-test information and the decision of the applicant whether or not to take the test
- 5.4.3 It is, of course, possible to deposit DNA both for research and storage.
 - 6.1 The primary object in requesting a prenatal test is to avoid giving birth to a child who carries the HD gene. It is for each test centre to decide whether they will perform prenatal tests if persons do not give complete assurance that they will terminate a pregnancy where there is an increased risk of HD.
 - 6.2 The comment to 6.1 above also applies to exclusion testing where the fetus has the same risk as the at risk parent.
 - 6.3 While it is highly desirable that both parents should agree to a prenatal test, the wishes of the pregnant woman must be given priority. However, it is for each centre to decide how to proceed if disagreement about prenatal testing becomes apparent before the pregnancy.
 - 7.1 Refusal to undergo these and other additional examinations will not justify withholding the test from applicants.
 - 7.3 Lay organisations should be mentioned as one source of support and information.
 - 7.4 If funding for testing is generated as part of a research protocol, adherence to the protocol will be necessary to ensure participation. Any proposals for tests for the purpose of research outside a protocol as a precondition for the DNA test must not be permitted.
 - 8.1 The prenatal diagnosis may be such an exception.
Such an interval is necessary to give the applicant sufficient time to make an informed

followed by the actual performance of the test (ie, between three and six months with an absolute minimum of one month). During this period, the counsellor should ascertain that the pre-test information has been properly understood and should take the initiative to be assured of this. However, contact will only be maintained at the applicant's request.

8.2 The result of the predictive test should be delivered to the applicant as soon as reasonably possible after completion of the test, on a date agreed upon in advance between the centre, the counsellor, and the applicant.

8.3 The participant has the right to decide, before the date fixed for the delivery of the results, that these results shall not be given to him/her or to any third party.

8.4 The results of the test should be given in person by the counsellor to the participant and his/her partner. The counsellor must have sufficient time to discuss any questions.

8.5 All post-test provisions (see section 9) must be available from the moment the test results are given.

9 POST-TEST COUNSELLING

9.1 The counsellor should have contact with the participant within the first week after the delivery of the test results.

9.2 The frequency and the form of the post-test counselling should be discussed between the team and the participant before the performance of the test, but the participant has the right to modify the planned programme. Although the intensity and frequency will vary from case to case, post-test counselling must at all times be available.

9.3 If there has been no further contact within one month of the delivery of the test results, the counsellor should initiate the follow up.

9.4 The lay organisation has an important role to play in the post-test period. The information and support that it can provide should always be offered to the participant.

decision. During this interval specialists from the test centre must be available for further consultation.

8.2 The counsellor should discuss with the participant whether contact is to be maintained during the period between the taking of the test and the delivery of the results.

8.4 The manner in which the results will be delivered must previously have been discussed between the counselling team and the participant.

9.4 The services of the lay organisation should be recommended to all those who are considering the predictive test and who have taken the test, whether or not they belong to that organisation.

EDITOR'S NOTE. This statement is published here for the information of the medical genetics community; it will also appear in *Journal of the Neurological Sciences*. Its publication does not imply agreement of the Journal with all of the views expressed.