

The Genethics Club

Key themes and issues

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Background

- A national ethics forum for genetics professionals
- Began with a Wellcome Trust Symposium in Oxford
- 23 meetings since 2001
- 3 per year (2 in London, 1 regional)
- Between 25 and 60 people
- ~230 cases
- Some key ethical themes have emerged

1.The burdens of knowledge

*[One of the main ethical issues arising] is [...] the [situation] where you have information about someone based on other family members that they don't know about. [...] How do you convey that information without breaching confidentiality. Prime example [for me was a patient]where I knew a lot about the natural history of their particular gene having seen twenty or so of their relatives but they didn't know **anything** about the rest of the family which made it difficult to give them [advice]. Well, I could give them information quite easily because I knew quite a lot about what the outcome was likely to be but that might have appeared to be [offering] a rather false sense of security [because] they didn't know [that I knew] about the rest of the family. So if they did a lot of reading, which of course a lot of patients do, they'd say well how on earth can you say all these things with such certainty? 1.22.*

1.The burdens of knowledge

Saw a woman about her family history of cancer. It wasn't very significant and we were reassuring but she [also] said she was concerned about her two daughters [...] as she knew that there was a history on their father's side. His sister had ovarian cancer and there was further history but she didn't know the details. They had quite an unusual name and so my colleague checked this against a database of known mutation carriers . Initially we could see no connections with the families we knew of but when we drew together another pedigree we found that he was quite distantly related to a known BRCA1 carrier who had actually given consent for the result to be disseminated. His consent meant there wasn't an issue about disclosure to [the father] because eventually it would have been disseminated [...] but the issue that arose for us [was] what can we tell the mother because she was separated from him and [it has no direct relevance] to her. She was asking on behalf of her daughters but they were adults. Should we tell her or should we say we've got some more information but it's only of relevance to the daughters . The problem was that she was the only patient that we had seen. Nobody else had come forward to us. (7.6)

Ethical issues

- Long term relationships with families
- Merging records in databases
- Creating master pedigree
- Verifying pedigrees
- All create new knowledge
- Consent
- Whose record?

2. Non-disclosure

A pregnant woman wanted her fetus tested for Cystic Fibrosis. When we carried out the test the result (for standard common mutations) was negative but the concern is that the family mutation might be a very rare one and the standard test might have missed it. Someone else in the family has had carrier testing for Cystic Fibrosis and so the lab does hold the details, but they are refusing to release details of the mutation. Apparently the woman who had original test didn't want family members to terminate pregnancies. The question is, should the lab do the test (using the other family member's result) but without telling? 6.3

2. Non-disclosure

The clinic was approached by the aunt and uncle of a patient. They wanted to have carrier testing for Cystic Fibrosis because they knew that their nephew, the clinic's patient, had been diagnosed with Cystic Fibrosis. They said that they came to the clinic directly because they didn't want to go to the parents of the child, the aunt's sister, to talk about this because they didn't want her to know that they are going for testing and that they were worried about the risk in the family. The mutation details of the nephew are known by the clinic and the test could easily be carried out, but is it acceptable to use these details to carry out the test? The couple say that it isn't possible for them to talk to their nephew's mother about this. (5.8).

Ethical issues

- Encouraging communication
- Is direct contact acceptable?
- The importance of high standards of confidentiality
- The law, the GMC and 'serious harm'
- Personal account / joint account

3. Patients with learning disabilities

The adult children of a woman have been referred for carrier testing because of a family history of Galactosaemia, an autosomal recessive condition. The woman's sister, who is still alive, had been diagnosed approximately 50 years previously, shortly after birth and the woman herself was found at the time to be a carrier (supposedly, but no record found). She was retested quite recently and no mutation was found. In order to clarify this situation for the adult children the geneticists wanted to look again at the older sister's diagnosis (originally made 50 years ago). Unfortunately she has learning difficulties and is living with elderly relatives who care for her. She is also supported by other family members. The idea is to test a sample from her but the problem is that this would not be for her clinical benefit, but for that of her sister and her children.

10.3

3. Patients with learning disabilities

One of our patients is a mother with mild learning difficulties. She already has two sons with fragile X. The family is known to social services and she was referred to us for genetic counselling. The genetics team knows that there is a nephew living nearby who has similar problems. We believe that it is possible that the nephew also has fragile x but has been undiagnosed. We are not sure whether the family is aware and we feel a duty to ensure that this other branch of the family is offered genetic counselling and testing too. What should we do? I have been trying to go through the mother but have had no response as yet. Should I wait for her sister to contact genetics? Should I ask social services to carry message? I have also tried to conduct my own enquiries through contacts with other clinical and lab colleagues but they have told me that this is confidential. 2.1

Ethical issues

- Consent and capacity
- Definitions in the Mental Capacity Act
- Capacity for this decision
- Best interests
- The role of relatives

4.Unexpected findings

Family with an x-linked disorder. We did not have a mutation in a gene and therefore had to carry out linkage studies. In order to offer prenatal testing to the female cousin of an affected person we needed to go back a few generations to look at the linkage. We were talking to a generation of people in their fifties. All very happy to come along and give samples. One of the samples showed possible non paternity and another showed possible adoption. No genetic marker in common with anyone else in the family. What should we do? This was a long time in the past. Is it acceptable to simply tell the person that there is no risk of the disease in this part of the family? Or do they need to know that apparently they are adopted? The person concerned was deceased so can't go back to them. So, we were just left with this information and not knowing how to deal with it.G1.21

4.Unexpected findings

John and Sarah attend the Genetics Clinic following the diagnosis of a severe and debilitating autosomal recessive condition in their newborn baby. High chance that the child will die in the first year. The gene for this condition has been mapped and there is a possibility that pre-natal diagnosis would be possible in a future pregnancy. John and Sarah give their consent for a blood sample to be taken for DNA extraction, from themselves and their affected child. Analysis of these samples reveals that John is not the biological father of the child. At their first consultation, when the condition was explained to them, they were told that there was a 25% chance that any future baby of theirs would be affected. The carrier frequency for this condition is approximately 1 in 1000 and thus the chance that John is also a carrier is in fact negligible. Should the geneticist discuss the finding about paternity with the parents when they come back to the clinic as part of their on-going counselling? Whilst they did not seek information about paternity, it is of direct relevance to their understanding of the probability of an affected child in future pregnancies. G2.2

Ethical issues

- Duty of care to more than one person
- Truthfulness
- Concern for the relationship
- Who to tell
- Thinking about and discussing the unexpected in advance

5. Prenatal testing for 'minor conditions'

A 45 year old woman and husband. Had an amnio. They have been in a 15 year relationship but have only been married for one year. Now pregnant. The baby has triple X. Midwife informed genetics that the couple were planning to terminate (currently at 17/18 weeks). I have found it hard to reconcile request for termination with a reasonably positive prognosis for XXX. Most girls with triple x 'look normal and go to normal schools' Are fertile and have normal babies. The couple saw it as a major problem especially the possibility of psychological morbidity. need to tell them what we know about prognosis whilst at the same time being respectful. Is my job to challenge their decision? More recent literature suggests an even milder phenotype (but a small literature). 14.6

Ethical issues

- Geneticists see a close link between prenatal testing and abortion
- More focus on seriousness of disability than on mental and physical health of the woman
- What is minor?
- Is termination for a 'minor' condition every justified?
- Inconsistency with practice elsewhere

6. Where testing one person tests another

We have been working with a family in which an HNPCC mutation is known. One of the daughters was recently booked in for a predictive test but when she came in for it she revealed that she was an identical twin. This is an important fact because it means that a test on her would also be a test on her sister. She said that she had spoken to her sister but that she has decided to go ahead alone because her sister is 'facing difficulties' and not in a position to go through this. We told her that if we did the test it would also be a test on her sister and that we'd be reluctant to do it without involving her sister. She went away and came back shortly after saying, 'I am not an identical twin'.4.7 (transcript)

6. Testing one person tests another

We've got a large family in our practice, all of whom still live within the practice area, or most of whom do, who carry BRCA1 and they were first reported (^^^) in about 1968 and obviously when gene became identified they were they were tested and found to be positive. And there are now lots of different strands of the family, and one particular young woman came to see me because she knew that her grandmother was a carrier of BRAC1. [She] also knew that her mother who lives in Wales and she is (^^^) a patient of mine didn't want to be tested. [By contrast with her mother, my patient] very definitely did want to be tested and I referred her to the local clinical genetics department[...]. And after some discussion [they told her that] she wasn't gonna be offered testing because of the confidentiality issue with her (.), with her mother. (GP transcript 1)

Ethical issues

- Encouraging communication
- Consent, counselling and confidentiality as key elements of good practice
- The care of the patient in front of me
- Should the family get a veto over patient's access to care?

7. Referrals from other specialties

We've had lots of referrals or families or cases have been bounced towards us where (.) we haven't had any direct involvement with the family and the other clinicians are passing the buck to us to to kind of, pick up all the pieces. Good examples of this were a urologist who decided to test a young adult for possibility of Klinefelter Syndrome which he did, and it was positive. And he hadn't told the patient that he was doing this test and then he simply wrote to us and said

"Would you mind sort of sharing this information with the patient". [...] And we've also had the case where, quite recently, where a neurologist sent off some bloods as part of a research project for pre-senile dementia - sent off to the dementia research group - who eventually they found a mutation and the a pre senile gene and we were asked to approach this family and pick up the pieces and deal with it; and yet we'd had absolutely no involvement and the neurologists felt out of their depth and and yet we haven't said "no" simply because we could probably handle it better. So we become we become the fall guys almost. [In one case] I've had a letter back from the family saying that (.) complaining that they'd never got any counselling before the bloods were sent off (T1)

Ethical issues

- Different professions with different ideas of good practice around testing and counselling
- No real consent
- Implications for patient and family not explored in advance
- Approaching people out of the blue

8.Children and Young People

Sample from 9 year old boy in residential care home sent to genetics lab by GP. Mother has a neurological autosomal dominant condition, father is schizophrenic. Several attempts have been made to adopt the boy out but several potential families have been deterred by the family history. Social workers want the boy tested so that if negative he will be more easily adopted. -best interests? -Is it in his interests to be adopted in an appropriate way?-Is the potential parents' attitude appropriate? G2.9.

8.Children and Young People

John and his brother Tim are in their early thirties and both have been diagnosed with LQT. John has had some symptoms of the condition. In clinical tests his blood pressure failed to rise after exercise and he has heart arrhythmias. Tim has had two children that had died early. Their sister Anne does not have LQT. Although both of their parents are deceased, neither was known to have a diagnosis of LQT when they were alive, but it is highly probable that John and Tim inherited the tendency from one or other of their parents. Genetic analysis reveals that they do in fact both carry the same LQT gene mutation. John and his wife Daisy have 2 sons: Ben, 14 and Tom 2. They have had two other children, one that died of cot death and another that died as a result of drowning. Ben has been under annual follow up for two years and clinical tests have shown normal results. Ben's parents want Ben to have a genetic test to establish whether he has inherited the LQT gene from his father.

Ethical issues

- Child's right to choose for themselves
- Parents' right to decide what is in their child's best interests
- Testing for non-medical reasons related to 'best interest'
- Is genetics practice too paternalistic?
- 16 + 17 year olds assumed competent to consent
- <16 can consent if competent (Gillick)

9. Research and clinical practice

The interface between research on very rare conditions and clinical practice. A dozen cases in the UK. The difficulties of dealing with research ethics committee review: requirements such as method, confidentiality, anonymity etc. The patient and the clinician contact the researcher because they want a diagnosis but have to go through the whole REC system. International dimension to this research samples flying between countries. For many families there is a continuum and no clear break. Barriers put up by RECs act against the interests of families in the area of rare disorders. As a clinician-researcher I find it impossible to maintain and see this clear distinction between practice and research. Issues about the need to get consent for each different test on the sample. This is unrealistic where you are looking at genes that are related to the search for a clinical solution. What is a clinical test what is research? G1 issue

9. Research and clinical practice

This case concerns a family known to have a history of breast cancer. One member of the family recently died of lymphoma and near to her death consented to the use of a blood sample for a research project. It is assumed that her lymphoma was part of the syndrome related to the family history. This being the case, is it acceptable to use the sample for the benefit of the deceased patient's relatives if this will make it possible to carry out presymptomatic tests on them? The concern here is that consent was given for the use of the sample in research, not in clinical practice. A further question concerned whether it made a difference to the decision if the sample was part of her health record, rather than part of a research project. G3.2

Ethical issues

- Close relationship between research and practice and its benefits for patients
- Results can take time – implications for consent
- The therapeutic misconception
- What to do when research generates clinically relevant information? Duties of researchers.

Summary

- Burdens of knowledge
- Non-disclosure
- Learning disabilities
- Unexpected findings
- Prenatal tests for minor conditions
- Where testing one person is to test another
- Referrals from other specialties
- Children
- Research and clinical practice