

findacure

Rare disease perspectives

2016



Patient focus group report:

Friedreich's ataxia

This study was completed in the first half of 2016, as part of Findacure's Drug Repurposing for Rare Diseases Social Impact Bond Development project, in collaboration with Ataxia UK.



LOTTERY FUNDED

The cover image does not depict an actual focus group event, rather showing another Findacure meeting. The identity of all focus group panellists is purposely kept private.

All of the information in the following report is based on the facts, examples, and opinions expressed in the Findacure focus group. Findacure would like to thank all members of the panel for their valuable participation and insight. We also thank Ataxia UK for their help in organising and running this focus group.

Executive summary

Friedreich's ataxia is a rare neurodegenerative disease which affects balance, coordination, speech, locomotion, swallowing, spinal form, blood glucose regulation, hearing, vision, and cardiac function. Findacure ran a Friedreich's ataxia patient focus group to assess the current treatment and care available to patients, the cost of the disease to affected families, and the patient perspective on clinical trials. The major findings from the focus group, which are detailed below, were used to build an argument for the need for new treatments for Friedreich's ataxia, potentially funded by Findacure's rare disease drug repurposing social impact bond.

- ❖ The journey to diagnosis is complex for Friedreich's patients and the initial explanation of the disease, along with the care experienced by patients just after diagnosis, is generally poor outside of specialist ataxia centres.
- ❖ Ataxia specialist centres in the UK provide a good source of expertise and their care is responsive to patient needs, especially through the use of multidisciplinary teams.
- ❖ The current Ataxia centres do provide opportunities for patients to engage with clinical research, but there are few clinical trials run in the UK on new drugs. Research opportunities are appreciated but invariably harder for patients to motivate themselves for – studies that track disease progress provide far less hope to the patient population.
- ❖ Communication between clinicians and patients is crucial to encourage their engagement in research. This could be improved in the UK.
- ❖ There is an appetite for more clinical trials of drugs to treat the underlying cause of Friedreich's ataxia, and patients are willing to take on more risk in such trials, as well as more responsibility.
- ❖ If a cure for Friedreich's ataxia is yet possible, patients agreed that a treatment to slow or halt the disease progression would make a dramatic impact on patient lives. Different patients had different perspectives on the symptoms of the disease they would most like to see addressed.

Rare disease perspectives

In late 2015 Findacure secured a development grant from the Big Lottery Fund's Commissioning Better Outcomes Fund in order to investigate the potential of a social impact bond to provide a new source of funding for generic drug repurposing in rare diseases. As part of this proposal, Findacure wished to engage with rare disease patients, in order to gain a better understanding of their need for new treatments, and the issues they deal with on a day to day basis.

To achieve this, Findacure decided to run a series of four patient focus groups, to collect the perspectives of rare disease patients. These focus groups helped to provide the personal stories and patient opinion crucial to build a strong argument for the underlying need for Findacure's proposed drug repurposing programme. The first of the focus groups gathered rare disease patients and advocates from across the spectrum. The other three groups were disease specific, focusing on the three rare diseases which formed the focus of Findacure's health economic studies: congenital hyperinsulinism, Wolfram syndrome, and Friedreich's ataxia.

The completed focus group reports have been made available to all of our anonymous focus group participants, our clinical partners for each of our rare diseases, and our patient group partners. They also form a key component of our final presentation to the NHS, designed to discuss the potential of commissioning a rare disease drug repurposing social impact bond to deliver new treatments to rare disease patients in the UK.

Friedreich's ataxia

Friedreich's ataxia is one of the most common ataxias, a collection of neurodegenerative diseases which affect coordination, movement, and balance. It affects between 1/30,000 and 1/50,000 people. Symptoms are usually first detected before the age of 25, with patients showing balance and coordination issues, slurred speech (dysarthria), weakness in the legs, and difficulty in swallowing (dysphagia). As the disease progresses it can also lead to curvature of the spine (scoliosis), diabetes, hearing and vision loss, thickening of the heart muscles (hypertrophic cardiomyopathy), and loss of sensation in the hands and feet. Friedreich's ataxia is a debilitating condition, necessitating extensive care in progressed cases. It tends to reduce life span, though some patients can live beyond their sixties and it is thus a chronic long term condition. There are currently no disease-modifying treatments available.

In early 2016 Findacure, in collaboration with Ataxia UK, organised a Friedreich's ataxia patient focus group in London. We were able to meet a number of patients and parents affected by the disease and gain their insights on the following issues:

-  the need of Friedreich's ataxia patients for new treatments
-  what Friedreich's ataxia patients need from a clinical trial
-  the financial burden of Friedreich's ataxia to families, and its social and emotional impact

The report below summarises the information gathered from this focus group. All participants consented to be involved in this study, and have been informed how their thoughts, experiences and opinions will be used.

Current Treatment of Friedreich's ataxia

Journey to diagnosis – In Friedreich's ataxia, diagnosis tends to occur during childhood, though late onset forms are not uncommon. One of our patients was diagnosed at 15, after being referred to a podiatrist for high arches. The podiatrists detected that she had poor balance, along with the issues with her feet, and referred her to a genetics centre. After a number of assessments were completed and blood samples were taken the family were told that they would be seen again in six months' time. A week later representatives from the centre came to their home town to deliver a diagnosis of Friedreich's and a leaflet. The subsequent support was lacking, with some, relatively poor, NHS literature being the family's primary source of information.

Another of our patients, with a later onset illness, had her symptoms noted at 17, when curvature of the spine was detected. This was corrected with a surgery, but Friedreich's ataxia was not diagnosed. While at University she noted problems with her balance, which resulted in referral to a neurologist. After significant testing she was diagnosed aged 20. There was little support after diagnosis, and no subsequent contact with the diagnosing doctor. The route to diagnosis through early presentation of scoliosis (spinal curvature) was more successful for other patients, though this was primarily due to it presenting subsequent to other symptoms. One patient's parents noticed poor balance and coordination from his first steps. This was not taken too seriously by doctors, who put it down to mild dyspraxia. It was a dietician, who noted the child's poor gait and early signs of scoliosis, who referred the family to Great Ormond Street Hospital, where a Friedreich's ataxia diagnosis was secured at the age of nine. Unfortunately the referral letter which outlined the suspected diagnosis to the Great Ormond Street team was misdirected to the family, so their first knowledge of the disease was based on their own google searches of the illness.

Other patients reported similar symptoms at onset – poor balance and coordination, high arches, and scoliosis – which ultimately led to a diagnosis, often four or five years after the first signs of symptoms. One patient did report their final diagnosis being delivered at a specialist ataxia centre in Newcastle by a paediatric neurologist, who was able to provide some level of explanation and continued care beyond this point. The patient has since undergone surgery for scoliosis and has recently had early onset cardiac problems identified. There are common themes of slow diagnostic journeys and poor communication in the majority of our stories. After diagnosis, the type of support or continued care can be limited. Our group agreed that patients need more information on both health and social care at the point of diagnosis. Doctors need to go beyond the medical diagnosis, and find a way to help patients and parents deal with its impact.

"In my experience – no, in our experience, as it's not happening to me and I keep forgetting that – from the point of diagnosis you inherit a team of different doctors, and they aren't necessarily talking to one another."

–Friedreich's ataxia parent

One patient summed up the situation for rare disease diagnoses rather simply. He understands that not all doctors are going to know about Friedreich's ataxia; however, he wants doctors to be "less lazy" - to think beyond the obvious or simple diagnosis, and to address the issues in more detail. If doctors can look at wider symptoms, and be more open to considering rare diagnoses, it could make a huge difference to rare disease patients.

Treatment experience – There was a strong sense from our panel that the earliest stages of care, essentially from the point of diagnosis, are delivered poorly. One patient, who never saw her diagnosing doctor again, and whose care is now coordinated by her GP, stated simply that she felt like

she was “on her own” after diagnosis. The best support appears to have been provided by those patients whose diagnoses were received at specialist Friedreich’s ataxia centres.

All patients noted the acquisition of a large number of different doctors, each specialising in different symptoms. The coordination between these is often poor, creating more work and problems for the patients. There is huge variation in service and care, based on funds, location, how forceful patients themselves are in securing support. Furthermore, the responses of these specialists can be very negative. During an annual eye check one optician asked a patient why they bothered coming for their check-ups, when there is nothing that can be done about any visual deterioration. Clearly this type of attitude, which leaves patients feeling as if they are time wasters, is unacceptable from a specialist.

“The whole [Friedreich’s ataxia experience] is absolutely exhausting, you can’t put it to rest, and that is something that maybe health professionals don’t get.”

– Friedreich’s ataxia parent

Physiotherapy was another treatment type raised specifically by the focus group. Access to physio is tough to secure, despite a strong belief from patients and families that it helps with mobility and coordination. Three-quarters of our group were either paying for their own physiotherapy or personal training. Patients agreed that this route also provided better, more tailored care than the NHS. NHS physios lack the time to research appropriate physio for Friedreich’s (such as suggestions in the ataxia guidelines). Privately, patients tend to get more tailored treatment. One patient mentioned that they had hired a personal trainer with specific experience training people with balance problems and disability.

All patients had tried potential treatments for Friedreich’s ataxia or were still taking them. Most were taking coenzyme Q10 and two of our group had received a prescription for this. One patient had taken nicotinamide, but had then be advised to come off it by her doctor. Idebenone had been taken by one patient, as part of a clinical trial, while another sources it privately from the Internet. This is supported by their doctor, who reports a reduction in the thickening of the cardiac tissue since taking the drug.

Transition from paediatric to adult care – For many rare diseases, transition from paediatric care to adult care can be a difficult step. The ataxias are somewhat unusual as their UK specialist centres are adult services rather than paediatric, so this may act to improve the transition process. Generally, our patients noted little major difference between paediatric and adult care, which is a positive sign. One patient had been treated within the adult service as a child, while another had simply moved to a clinic a little further down the road at the age of 18.

One patient did note some of the benefits of the adult service’s multidisciplinary team structure. During the course of his annual visits he has received referrals to new specialists to manage and assess his symptoms. He feels that the service is responsive to patient needs, and the incorporation of both physiotherapy and a speech therapy into the visit has proven very helpful, and helped him gain advice and support needed to live more independently.

Treatment hopes and aims

There was unanimous agreement that a treatment to halt disease progression should be a key target of any new Friedreich’s ataxia therapy. All patients seek cures, but stopping symptom progression would be of huge benefit to patients.

Interestingly there was a wide range of opinion on the symptoms that patients would most like to address. This tallies with the findings of our Wolfram syndrome study – patients experience disease in very different and personal ways, and with progressive illness there is often a focus on a currently developing symptom or a symptom which imposes most isolation on the patient. A late onset patient was most concerned about balance and coordination, which has the biggest impact on her day to day life. Balance was a major concern for another patient, with a particular worry about how others perceive their lack of coordination and control. Conversely, an early onset wheelchair-bound patient’s biggest concern was speech. He could cope with all other symptoms, which were the most severe in the room, but hated his voice, and the barrier it creates to other people.

“I hate my voice.”

– Friedreich’s ataxia patient

One parent gave another interesting perspective. She felt that her daughter was most frustrated by the way that the disease interferes with every aspect of her life. It makes even the simplest tasks and outings a logistical challenge, and lessening this burden would hugely improve her life. However, from the parental perspective, the real worry is cannot be seen – the potential cardiac complications of the disease. This causes great fear and anxiety that one day she’ll miss a sign of severe complications. She said “The whole thing is absolutely exhausting, you can’t put it to rest, and that is something that maybe health professionals don’t get.” Hidden symptoms are a real emotional drain, and very difficult for patients and families to confront.

There was a sense from the group that the whole ataxia community need to be more “on it” to deliver new research or treatments. There is an appetite for this involvement particularly from young people. One parent remarked “It is a very desolate path, and that’s the reality. We can all put the spin on – we can say we’ve come so far, and coped so well- and I’m sure it’s all true, but there is great deal more we could do.”

Financial costs of Friedreich’s ataxia

Financial costs – The major costs of Friedreich’s ataxia outside of the NHS are costs of care. These cost can vary widely between patients, depending on their own experience of the disease. One of our patients works as a primary school teacher. Work is exhausting, but love of the job means that she will not compromise her working life. This shapes her perception of the disease, meaning that she does not really consider its costs: it is part of her life rather than a force imposing costs on it. When questioned about the cost of Friedreich’s she did recognise a cost of care to both her family and friends during school, college, and hospital treatments, but admitted that this would be hard to quantify.

For Friedreich’s children this cost of care is borne by parents. One of our single parents put the cost of care at two-thirds of her salary: this was the salary reduction when she became a carer for her daughter. Another parent said that she felt she is unemployable with everything she has to manage. Self-employment gives her the huge amount of flexibility required, though this comes with a clear loss of earnings. Parents can receive support for care, with one family mentioning disability living allowance as a source of support. However, the struggle to secure such benefit payments can be profound. One parent remarked, “By the time that you get down to the nitty gritty of the finances, you are so exhausted with the medical side that you roll over for the financial and benefits side. If we can get a few quid to help us on the back of the health, psychological, and welfare fall out, which are the most important things, then so much the better. It’s just the way it is.” The personal healthcare budget is one such source of financial support which patients struggle to access. One parent had just won a prolonged struggle to use this fund to pay for regular private physiotherapy for their child. Other patients were spending around £40 a session on such physiotherapy or personal training.

One of our patients had just moved to his own flat, and secured funding for 24 hour care to allow him to live independently from his family. This is funded through direct payments, though these payments do not provide enough funding to hire carers from an agency. He must instead seek all care privately, paying £10 per hour directly, when the agency rate is nearer £16.50. He told us that the first request for financial support from the council were laborious, but he is now known personally to the staff there and able to secure the help he requires with less difficulty. This type of positive experience in securing necessary benefits is unusual, but encouraging to see.

Schooling - Pleasingly, all of our focus group members had relatively positive experiences in the education system. One patient was given free private tuition during sixth form around an operation to correct scoliosis. Another childhood patient is currently supported by a fully implemented healthcare plan and their school has gone above and beyond what was needed to support her needs. This includes a revised timetable, and reduced curriculum, designed to manage her energy levels and maximise her learning.

Another of our patient's parents had a fight to secure support and access for their child to attend a mainstream school. However, they won this battle, securing council funding to increase the school's accessibility, and the provision of a teaching assistant to support learning throughout their education.

The patient perspective on clinical trials

All of our patients have had some involvement in Friedreich's ataxia research – most through either natural history studies or clinical measure validation studies at specialist ataxia centres. There were varied levels of understanding about these studies in the group, and the routes to participation varied from recommendation by a clinician, to simply hearing about the projects at an Ataxia UK conference. This made our Friedreich's ataxia focus group a useful forum to better understand patient thoughts on trials and what can motivate their continued involvement in research.

Clinical trial experience and motivation – The story of one of our patients' involvement in a study serves as an excellent exemplar of the patient experience of clinical research. The family signed up for a research project, which aimed to find a new marker for disease progression at an ataxia specialist centre. Initially parents and patient were very excited. It felt like something positive and proactive, helping to take control of the disease. They felt that they had a good grasp of the tests involved, and the patient was prepared for them. Initial participation was hard, and it quickly hit home that all the study was doing was measuring deterioration, rather than addressing it. Over time, this view has changed, as the family came to appreciate the potential of this measurement to help the wider Friedreich's ataxia community to run more successful clinical trials. This was helped by some positive feedback about patient disease progression based on the new metric. At this stage the only feedback has been of personal results, but the family are hopeful that they will get more information after the conclusion of the study. This shift, from early positivity and enthusiasm, to a despondency at the reality of the clinical trial process is a common theme in conversation with patients. Fortunately in this case positive communication between the clinical team and patient helped to reaffirm the value of their participation.

The initial motivation for trial participation appears to be a mixture of entirely understandable self-interest – a desire to take control of the disease and change their circumstances – and a desire to help

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– Friedreich's ataxia parent

others – either other patients or scientists working to better understand the disease. One patient became involved in a natural history study, with the intent of helping to drive scientific research while increasing their own chances of being involved in any new clinical trials. Another patient professed that he believes that it is too late for him to benefit from new treatment, but he is motivated by the idea that he can help future generations. Clinical trialists need to recognise both the personal and altruistic reasons for trial participation, and ensure that they target both drivers to ensure maximum participation in rare disease trials.

The clinical trial experience is invariably difficult for patients as, at very least, it increases their contact with doctors and hospitals. This can lead to patients feeling more like a ‘research subject’ than a person. It can also increase their focus on the long term implications of their illness, which are often pushed aside by day to day life. One of our patients is involved in a US-based trial, primarily because the clinical team there were able to engage with her in a way that made her feel understood, valued, and optimistic about her life. Their experience with Friedreich’s ataxia normalised the disease, and gave her confidence in the team and the trial process. The trial has proven tough, as it requires regular

“I’m of the belief that it’s too late for me, and I’d like to help future generations. I’d like my great-great grandchild, if they get ataxia, to be cured.”

– Friedreich’s ataxia patient

injections and caused extreme sickness in the first few months. Despite this the patient was determined to continue. After 6 months, she learnt that she had been part of the placebo arm of the trial. This was a blow, as the cost of the trial was high both financially and emotionally. However, during treatment she had not noticed any improvement in her own symptoms. Consequently after her initial negative reaction to being on the trial’s control arm, she was actually reassured that the drug could still be beneficial. She was then able to sign up for a six month open label trial of the drug, which is on-going. This option was something that was outlined to the patient at the trial outset and played a key role in her involvement.

A good understanding of what a trial involves is crucial: “nobody wants to start down a road which they are unable to continue”. Patients need to feel important, valued, and informed, but must know that no one can be made a special case. In the example of the US trial, the family knew the necessity of the placebo arm, knew there was the chance to move to an open label trial of the drug if it was performing well, and understood the long recruitment process and the commitment required for the trial visits. They found the support from the clinical team brilliant, and are thanked by everyone in the hospital for their time and effort in being involved in the trial.

The need to improve clinical trials for patients – Our focus group agreed that there should be a clear pathway for patients to engage in trial design early on, and a steady flow of information back to participants during a trial and after its completion. They would like to see more emotional and financial support for trial involvement too; however, all of this was seen as an ideal. One parent remarked that “there are more patients and families today who are prepared to take responsibility financially, commitment-wise, and investment-wise. I’m not sure how clear that is.” The patients see no alternative to participating in research. There are no other options and it is of huge importance to patients that they take the chances that are in front of them. The key thing our focus group asked for were more opportunities to participate in clinical studies, not a reformation in the way those studies are delivered.

Patients are happy to take the risk of clinical trial involvement, as many feel like they have nothing to lose. There was an admission though that, when it comes to basic research over clinical trials of new treatments, they would participate in those studies that are run concurrently with their usual check-

ups. They are less likely to go to a huge effort for such research, as the direct benefit is harder to identify, and therefore the commitment harder to justify.

When questioned on trial length and demands of data recording in trials, the whole group agreed that they would be happy to collect quite high volumes of data or commit significant time for a trial. Crucially, the patients are looking for good communication of these expectations. They want to know exactly what is expected upfront and expect the trial to live up to this. It is worth noting that in other conversations with patients about specific trials and specific trial protocols, Ataxia UK have received quite different reactions. The positive philosophy around trials espoused by our focus group is laudable and surely sincere; however, patient reaction to the specific demands of a particular trial should be expected to be somewhat different, as the quantifiable impact on day to day life is likely to take more precedence over the more ephemeral hope of a potential treatment.

Conclusions

Our Friedreich's ataxia focus group featured a very wide range of patient experience, both of the disease itself and involvement of clinical research. It led to some of the most emotional discussion in Findacure's focus group series and brought out some strong personal opinions about disease treatment and clinical research. There was a strong call for more opportunities for Friedreich's ataxia patients to engage in clinical trials. Such research is seen as a source of hope to patients and something that the patients are willing to endure risk and personal difficulty to engage in.

The diagnostic route clearly needs improvement in Friedreich's ataxia, as does the delivery of the first information about the illness. Patients broadly have a positive experience in the specialist ataxia centres, which do offer opportunities to engage in clinical research. However, the outcomes and benefit of these studies on disease natural history or disease measures could be made more accessible to the patient population.

A new route to fund a repurposing clinical trial in Friedreich's ataxia would be welcomed by patients. The interest is present in the community for such treatments, and the clinical network, expertise, and patient support network is clearly in place to deliver a trial that would work for patients and clinicians alike.

