findacure

Rare disease perspectives

2016

Patient focus group report:

Rare disease patients

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.

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.

Executive summary

Any given rare disease affects no more than 1 in every 2000 people; collectively, however, they affect an estimated 350 million people worldwide. With only 400 licenced treatments, there is a huge unmet need in the rare disease community. Findacure ran a rare disease patient focus group to assess the experience of rare disease patients in the NHS, the types of treatments available to rare disease patients in the UK, and the cost of rare diseases to affected families. We also discussed their impression of Findacure's drug repurposing social impact bond as a tool to deliver new treatments to patients.

The major findings from the focus group, which are detailed below, were used to build an argument for the need for new treatments for rare diseases, potentially funded by Findacure's rare disease drug repurposing social impact bond.

- While rare diseases have gained increased attention and interest in the last few years, there is still a lot of work to do. Diagnosis remains a major challenge for the healthcare system, as does the coordination of care for complex, multi-systemic rare diseases.

- Specialist centres for rare disease treatment provide a source of specialist knowledge on rare diseases, and access to the multidisciplinary care they need; however the demands on travel time are high and can be inappropriate for many conditions. Furthermore, information from specialist centres is not always disseminated successfully to local practitioners.

- Coordination of care is a fundamental challenge for all rare disease patients, and patients who try to take control of their own treatment often face a battle to be taken seriously.

- Few rare diseases have available on-label treatments, and the majority that are available are expensive, and may struggle to secure reimbursement. Off-label prescriptions are far from un-common, but lack uniform access and proper monitoring.

- Loss of work is the major cost of rare diseases to patients. This impacts both their finances, but also their social and emotional well-being. Furthermore, lost work is a significant cost to society, both through increase welfare payments, and the loss of many potentially productive people from the workforce.

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.

Rare diseases

A rare disease effects less than 1 in 2000 people in the general population. There are over 7000 rare diseases known in the world today, and this number keeps on growing as our understanding of human genomics rapidly expands, helping to identify and differentiate many previously unknown rare genetic conditions. Collectively rare diseases affect roughly 350 million people worldwide, though each individual disease will invariably have a small and fragmented patient population. This makes rare diseases hard to study and limits the financial incentive for the development of new treatments. There are only around 400 licenced treatments for rare diseases on the market today, creating a huge unmet need. Millions of patients are left without treatments, and with little hope over ever seeing one in their lifetime.

In early 2016 Findacure organised a rare disease patient focus group in London. We were able to meet a number of patients and patient advocates who represented a broad range of rare diseases and gain their insights on the following issues:

- the NHS approach to rare diseases and rare disease patients
- the availability of rare disease treatments, and the use of treatments off-label
- the financial burden of rare diseases to families

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.

The current NHS approach to rare diseases

Currently, the NHS commissions care for rare and ultra-rare conditions at a national level. This means that for some rare conditions there is a specialist national service, located at one or more sites in the UK. Here patients should be able to access clinicians with real expertise in their conditions and the range of specialists they require. For those rare diseases with such a service the major problems encountered are a smooth route to diagnosis and referral to the centre, as well as securing funding for the service long-term.

One of our panellists represented a rare disease with a specialist service funded through a partnership between her patient organisation and the NHS. This partnership means that the patient organisation provides input on the delivery of the service, and have developed close working relationships with the specialist clinicians in the field. This is highly valued by the patient organisation, and helps to ensure a clear route for patient feedback into the NHS treatment pathway. They have noticed a clear desire from the NHS to reduce the cost of the service though and there is a constant worry that funding for the service could be cut.

The patient experience of specialist centres is varied. The collection of expertise in a given location is viewed positively, but this expertise is not always disseminated well to local healthcare services. One patient gave the example of physiotherapy. Specialist guidance exists to instruct physiotherapists in the treatment of patients with her condition; however, this is not disseminated to her local practitioner. This means that the patient is forced to pass this information on, at risk of being ignored as a non-specialist. This is a classic problem for rare disease patients who are often forced to become 'expert-patients'. In an ideal world this problem should not be exacerbated by the healthcare system.

The specialist centre model also creates a need for extensive patient travel, adding an additional financial cost to rare disease care that is rarely subsidised. Many conditions are poorly suited to such travel – patients on our panel represented conditions with mobility issues, lack of energy, or balance problems, all of which can turn long distance travel into an ordeal for patients, and necessitate assistance or care.

Unfortunately, the majority of rare diseases lack a specialist service. For these conditions, while diagnosis remains a major problem, the coordination of care, particularly for complex, multi-systemic diseases, is a real challenge. All of our panellists agreed that the NHS is not well coordinated. Each country in the UK has a different service, and these connect poorly. Different local health bodies within these countries also have different systems to the countries themselves, as well as different priorities and procedures to one another. All of this makes coordinating care for a complex rare disease extremely challenging, and the type of care received by patients is subject as much to geography and the engagement of a GP as it is to national policy.

Most rare disease patients need to see multiple specialists to manage their disease. One patient stated that "each time I meet a new specialist, it's like I have to start all over again". Communication between different specialists is often poor and their understanding of specific rare diseases is rarely detailed, if it exists at all. This leads to prolonged diagnosis and a struggle to secure treatment. One panellist took 18 months to secure her diagnosis, at which point one specialist recommended an off-label treatment. However, her GP initially refused to prescribe the drug, leading to a further 18 month battle to secure the treatment. A number of our panellists have had to provide their GP with information about their condition, identify specialists themselves, and request their own referrals.

This type of patient-led care coordination is not uncommon, but it is not something that all patients have the energy or drive for. This leaves these patients in a position of even greater uncertainty, with slower diagnosis time and a much lesser chance of receiving treatment. Furthermore, due to poor knowledge about rare diseases and the latest treatments, one of our panellists believed that a lot of NHS resources are wasted through the prescription of ineffective treatments to these patients.

Problems in care coordination are often exacerbated by administrative failures. While these are clearly not restricted to the rare disease field, the complexity of cases and the tendency of rare disease patients to be moved between specialists, make them more prone to suffer from such errors. These invariably act to compound their own frustrations about their care. One panellist's medical letters are persistently sent to the incorrect address, despite multiple attempts to correct it. Another was not notified of an appointment and only found out about it when she was copied into a letter sent to her GP saying she had not turned up. One Welsh patient only discovered that his appointment at an English specialist centre was cancelled once he arrived there. These are minor failings, but can have a serious impact on the care received by rare disease patients and serve to erode faith in the healthcare system.

This poor coordination can be particularly challenging for patients moving from paediatric services, into adult care. One panellist believed that very few medical professionals appear to read previous notes at these crucial handovers. This means a lot of vital knowledge is lost, at a time when a new patient-doctor relationship is forming, and patients may lack confidence in controlling their own care with less parent involvement.

Accessing treatments in such an uncoordinated framework can be a real challenge. The relationship between clinician and patient, combined with their respective level of knowledge and engagement with the disease, are often the crucial determinants of success. Local GPs often do not understand rare diseases and this has a dramatic impact on patient experience of the NHS. One member of a patient support group reported hearing numerous patients commenting that they've left their doctor's surgery in tears, and are never going back. This type of interaction can irreparably damage the patient-doctor relationship. One panellist does not have confidence that her local GP knows enough to prescribe things for their disease or to decide plans of action.

However, when the GP can commit time and effort to the patient, and address their concerns, a strong partnership can be formed, ultimately helping the patient find the care they need. Due to the connectivity of many rare disease communities one such positive interaction can have an impact of many patients. You need champions in NHS to help patients, people who are willing to work much closer with patient groups, to listen to what they have to say, and support their work. Such champions can help to improve patient access to treatments on a wider scale, or help to initiate the clinical studies for which there is a clear appetite. In a number of rare diseases such patient and clinician champions are already having a profound impact on the service received by the wider patient population.

What current treatments are available to patients?

On-label treatments – The most advanced treatment option for any member of our panel was a recently approved repurposed drug. Unfortunately the treatment had yet to be approved by the National Institute of Clinical Excellence (NICE), so cannot be provided to patients on the NHS. In the US, the treatment can be purchased for around $1000 per year, however, the approval of the drug by the European Medicines Agency (EMA) for a rare disease has created an expectation of a huge sale price – something in the order of £100,000 per patient per year. This is a common issue for rare

diseases. In the rare case that a new treatment is developed, a high price is almost invariably charged, generally justified by the low patient populations and cost of treatment development. This can create a perverse situation where patients have a viable treatment available, but are unable to secure it through the NHS due to the high cost.

Another patient group faced this very situation. Research supported the use of a repurposed drug to treat their rare disease, and licencing had been secured. However the decision to provide the drug on the NHS was severely delayed. At the time of our focus group the drug was not approved for reimbursement due to an apparent lack of evidence. Fortunately, approval was secured in June 2016, after a long fight on the part of the patient association.

None of our other panellists had an available licenced treatment for their disease. One reported the presence of a treatment for a specific symptom, but even this is purchased by patients over the counter rather than through the NHS. Another only has access to pain management treatments, but despite exploring a range of different options with her doctor, has had little success in medical pain management. Such symptom management is the common situation for rare disease patients whether through medication or lifestyle changes. Some patient groups are actively researching disease modifying treatments, either through funding basic patient research or corporate collaborations. However, even in the example shared by one of our panellists, the treatment in development aims to halt disease progression, rather than cure the disease. Furthermore, the group expect that if approved the drug will be sold at a high cost.

The issue of high-cost on-label orphan drugs is something that NICE is beginning to address, particularly through the development of conditional approvals. Here, expensive treatment of a disease is only continued in a patient if there is clear evidence of benefit. Such schemes are designed to give patients who can benefit from a drug the access they require, while less money is lost to ineffective treatments in the NHS. This was an approach applauded by one member of the panel. Another panellist noted that drugs are not the only treatment required – medical devices are a growing area of research, but remain desperately hard to access for rare disease patients who could benefit.

Off-label drug prescriptions – A number of our panellists, like rare disease patients, had received prescriptions of drugs to treat their conditions that are not licenced to treat them. This off-label prescription is at the discretion of the clinician and does have the potential to lead to clinic-led innovation of new rare disease treatments. Of course, such prescriptions lack evidence of efficacy and are thus more risky to patients. Our panel reflected that the risk of off-label prescription was often more acceptable, because patients are desperate to do something to influence their illness. Rare disease patients are generally more willing to take on risk of treatment, both with clinical trials and off-label medicines, than patients with common conditions. One panellist took issue with this. He said rather that disease severity and the availability of support and treatment are the key driver of risk-taking in all patients. Clearly rare disease patients are often those with far less support and severe symptoms are not uncommon.

One frustration felt throughout the group was the lack of monitoring of off-label prescriptions. One panellist was recently prescribed three drugs at once; however, the use of these drugs solely in combination meant the difference each made couldn't be monitored. They found it irritating that no one monitors off-label drug usage. If there was a centralised system, there would be a large evidence base of proven benefits, which could influence new treatment usage more widely. Patient feedback and side-effects are also rarely recorded in off-label use. One panellist reported that people she knows

have been really badly treated when they have reported problems with the off-label prescriptions – one even being dismissed as psychologically unbalanced.

Another point of debate within the panel centred on the decision to proceed with off-label prescriptions in rare diseases. There was a general feeling that, ultimately, patients should make the decision about taking such drugs, based on information and evidence provided by the clinician. However it was also suggested that this was a utopian view. Patients often cannot understand the full complexity of the risks and benefits of off-label prescriptions, and they cannot have enough technical knowledge. Giving a lot of people information they cannot comprehend will ultimately lead to bad decisions. This was a hotly debated point. Generally the whole panel felt that there is a need for more explanation of off-label usage from clinicians: this is their responsibility. Doctors tend believe that patients should just trust them. They do not understand that patients need to do their own research. By sharing information and involving rare disease patients in the decision process, they would build trust, which is crucial to all rare disease patients, whose diagnostic odysseys often corrode trust in the medical profession. This allows the patients to better trust the clinician's decisions when they are made, and take some control over their own disease and treatment. It was finally suggested that patient groups have a role to play in building connections between patients and experts, and helping to communicate complex science to the patient population.

The cost of rare diseases

Rare diseases are costly to the NHS, but also costly to patients and their families. The major costs to patients tend to come through loss of work, increased travel expenses to meet distant appointments, provision of care, and meeting their special requirements. One panellist highlighted the major costs of his disease. Travel to and from specialist centres, which often needs to be wheelchair friendly, can be financially taxing as well as difficult to plan. Some patients require 24hour care at home, while many need modifications to their home to allow improved access and quality of life. While both care and modifications can be supported by grants and benefits, these may be tough to secure. It took our panellist 9 years to get the benefits he required, simply because of the rarity of his illness. Other diseases may require unique diets, which can be expensive to keep, and add great complexity to all social occasions. A number of treatments with potential benefit to a rare disease may also not be provided on the NHS. This will often create a substantial financial burden to patients, who are forced to choose between improved health and improved finances.

Loss of work is obviously one of the major costs of a rare disease. One of our panellist's illnesses led her to become a health and safety risk. This made her uninsurable in the work place and left her without employment. Despite working to improve her skills, her fragmented work history has caused a huge problem when searching for a new role. This clearly comes at a huge cost to the patient's life, increases costs to society for benefit payments, and is a loss of a potentially productive and educated worker to society at large.

When patients lose the ability to work they are forced to turn to the benefit system for financial support. As a general rule, this is a real challenge. Patients need to be able to navigate the system of disability care to get financial support, and there is a feeling that the language used in applications can determine the outcome. The system is perceived as unfair and many people who should receive support either do not know how to apply or fail in their application. Financial support for carers is key for many rare diseases. Unfortunately carers' income has a really low threshold. One panellist told us that you cannot get carer allowance if you earn more than £110 a week, with the actual allowance only around £62 a week. Some forms of benefit, such as Access to Work Support, can be used to help

patients pay for carers directly; however as this is often irregular work it can be very hard to find appropriate assistance. Even once benefits are secured, they cannot be guaranteed long term. One panellist's support was removed when the personal independence payment was brought in. She fought the decision as far as a court trial, but was finally forced to end her battle as travelling to the trail would exacerbate her symptoms. This patient felt that too much time and finance is committed to keeping people in need out of the benefits system. Rather, these resources could be used to help treat their medical conditions, or help to support those patients who manage their own symptoms.

When care is hard to find or finance, the burden tends to fall on family members: parents and partners often take the load. In some cases there is a loss of work and pay either to become full time carers, or to assist patients travelling to healthcare appointments. The burden of financial support for the family and patient may also fall on partners. One of our panellists told us that as she can no longer work, her husband has to do a job he does not enjoy, and after long days he still has to come home to provide care. As one panellist remarked, while patients will notice large amounts of the support and care they receive, it is impossible to appreciate the full cost of care to the carer, whether financial or emotional. Another noted the potentially entrapping nature of family care. Any relationship has the potential to breakdown, but adding a carer-patient dimension to a relationship can make it much harder for either party to move on if things are simply not working, as guilt and fear can bind people together.

Having to receive care, whether from the state or a family member, can bring with it an emotional cost the patient. One of our panellist's experiences clearly highlights this. She is supported financially by an elderly parent, which creates massive feelings of guilt as it acts to increases her parent's stress and subsequently impacts their health. Many patients also experience feelings of guilt and depression from having to receive support from the state. They are often keen and driven to participate in the working world and having this stolen away from them can be tough to bear. Furthermore the symptoms of rare diseases themselves may incur a psychological impact and securing support for these less visible symptoms can be very difficult.

Panel response to Findacure's drug repurposing programme

The focus group had a number of comments and thoughts about Findacure's drug repurposing project, and particularly the use of a social impact bond to fund such research. Everyone agreed that a new and innovative way to fund trials in rare diseases would be welcomed by the community. Drug repurposing is an area of increasing interest to patient groups with an active role in research, but finding a way to deliver these treatments to patients remains a problem.

The panel had three major concerns around our model:

- Patient access and protection in an off-label prescription model.

We pointed out that in the off-label model, the aim is really to provide a good base of evidence for prescriptions, and a framework for monitoring the use of the drugs subsequent to the study. All of our panel had experience of off-label use, which is often based on little evidence. The drug repurposing social impact bond aims to improve this situation, essentially accepting that off-label use happens, but working to provide more of the necessary evidence and monitoring to improve patient safety. By working closely with key UK clinicians for our target diseases we would be able to easily reach the majority of UK patients subsequent to the trial, minimising concerns of access. Our responses were well received by the panel, but based on this line of inquiry Findacure committed to developing an alternative on-label approach to our repurposing model.

- Targeting societal savings rather than NHS savings alone.

We agreed that this was an avenue worth pursuing and were encouraged that in our preliminary conversations the NHS were also interested in investigating such savings. In response to both the patient and NHS interest we developed a model of societal costs for our Friedreich's ataxia health economic model.

- Whether we could secure an agreement with the NHS to act as a success payer.

This is a key area for our whole project. We are pleased to have secured a letter of support from the NHS, stating their support for further development and investigation of the model. We explained that we had an NHS representative involved throughout our proof of concept study and were planning to use their input to develop the model in a manner that would work for the NHS at every step.

Further to these questions, the panel were pleased to hear our plans to target drug repurposing projects towards diseases with a good infrastructure in place, both from clinical and patient support perspectives. They were glad that we plan to involve patients in the development of clinical trials, and were open to investigating patient reported measures where appropriate.

Conclusions

Our panellists agreed that there has been an increased recognition of the need to improve rare disease treatment and care over the last few years, which has been reflected in government policy and the NHS. The national rare disease strategy and the focus on rare genetic diseases within the 100,000 Genomes Project have both helped to raise national awareness of the issue, and are beginning to improve the situation for patients.

There is, however, a long way still to go, particularly in improving the day to day care of patients. While diagnosis is likely to remain a persistent problem without significant advances in personalised genomics, it is the coordination of rare disease patient care and treatment that forms the major concern. Allied to this is the varied attitude of healthcare professionals towards rare diseases, unusual symptom combinations, or empowered and active patients. The healthcare system is at its best when general practitioners can partner with patients to explore their disease symptoms and treatment opportunities – patient and clinician responding to each other's needs and expertise. Sadly such scenarios are far from common.

The development of a new method to fund drug repurposing for rare diseases, which could be exploited by clinic led innovations or patient group driven research projects, would provide new hope to patients of treatment. Furthermore it would provide a greater level of evidence for existing off-label prescribed drugs and improve patient access to beneficial treatments. If this method were developed with the NHS and clinical teams that pioneer treatment of some of the rarest diseases it would also serve to increase the awareness of the rare disease problem, and help to restore the faith of many disillusioned rare disease patients in the healthcare system.