

# UK MYOTONIC DYSTROPHY PATIENT REGISTRY

ISSUE 6

[www.dm-registry.org/uk](http://www.dm-registry.org/uk)

[www.treat-nmd.eu](http://www.treat-nmd.eu)

[www.muscular-dystrophy.org](http://www.muscular-dystrophy.org)

Accelerating research and improving care in myotonic dystrophy

**Remember to update your details: The registry is only as useful as the information it contains.**

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## Welcome to the sixth newsletter of the UK Myotonic Dystrophy Patient Registry.

As of June 2019 there are 745 participants registered with the UK Myotonic Dystrophy (DM) Patient Registry. A huge thank you is in order for all of the patients, clinicians, caregivers and patient organisations who have supported and contributed to this superb achievement.

### 1. Update your details

Every year you will receive a reminder to login and update your details. This is so we always have the most accurate information about you in the Registry.

**Contact details:** If we want to contact you about a study we think you might be interested in or provide updates like this newsletter it is important your e-mail, postal address and telephone number are up to date. Please note that your personal details are only available to a limited number of Registry staff and will **never** be given to a third party.

**Your Condition:** This information will inform researchers if you are eligible to take part in a clinical trial or study. It may also be important for researchers wishing to look at how DM progresses in different people. Please check this information is up to date at least once a year and report any changes in circumstance, e.g. if you start using a wheelchair.



We attended the 12<sup>th</sup> Annual Neuromuscular Translational Research Conference in Newcastle on 4<sup>th</sup> and 5<sup>th</sup> April 2019. Here is the registry curator presenting the UK Myotonic Dystrophy Patient Registry.



## 2. We need to know your genetic details

Your genetic diagnosis is one of the most important pieces of information within the Registry. This is currently provided by your neuromuscular consultant.

However, if you do not see a neuromuscular consultant (though we recommend you do!), it is still important we have this information. Most studies and trials looking for participants will only include people with genetically confirmed DM. If you have a copy of your genetic report this can be sent directly to the Registry curator.

Alternatively you can speak to your consultant (neuromuscular specialist) next time you have an appointment and they should be able to provide you with a copy. If you have any questions, or are unsure if we have your genetic details please contact the Registry curator, Ben Porter, [myotonicdystrophyregistry@treat-nmd.eu](mailto:myotonicdystrophyregistry@treat-nmd.eu)

## 3. New studies and research updates

### **Myotonic dystrophy & autism - Recruiting ★**

The existence of both conditions in those born with myotonic dystrophy is now understood to be extremely common. On a practical level, increased awareness of the possibility of co-morbidity of two significant conditions within families can increase access to services, as provision is significantly better for autism spectrum disorder due to greater prevalence and funding.

The participants will be interviewed on film to provide a visual record of inherited characteristics that are, perhaps, not all attributed to myotonic dystrophy, in order that clinicians can see beyond the text-book symptoms of their patients to recognise them as individuals.

Participants for the filmed interviews will be selected following an initial (un-filmed) meeting or telephone conversation. I am seeking participants who fit the following criteria:

- Parent/ child sets, where the young person is between the ages of 16 and 35, approximately, and has a diagnosis of myotonic dystrophy, and ASD symptoms. Parent(s) do not have to have any diagnosis to participate.
- Both parties must be willing to participate.
- All parties should UK based, or be available for interview in the UK.

If you're interested in taking part in this study or want to know more about the study, please contact Dr Jacqueline Donachie at: [J.J.Donachie@lboro.ac.uk](mailto:J.J.Donachie@lboro.ac.uk) or by calling: 07399381687.

### **The PREFER project - Ongoing ★**

The PREFER project is a study exploring patient health priorities and their views on risks and benefits of potential treatments. This sort of information will help pharmaceutical companies to design more patient-centric treatments and clinical trials. The study has been designed for patients and caregivers of patients with either **myotonic dystrophy type 1** or mitochondrial disease. Participants must be 18 years old or older and with no previous diagnosis of stroke-like episodes or dementia.

The study will be conducted in two phases: 1) a set of face-to-face interviews and focus groups and 2) an online survey aimed for a large sample.

If you're interested in taking part in this study or want to know more about the study, please contact Dr Cecilia Jimenez Moreno at [Cecilia.Jimenez-Moreno@newcastle.ac.uk](mailto:Cecilia.Jimenez-Moreno@newcastle.ac.uk) or by calling 01912083078.

#### **Updates:**

As of early March 2019 67 DM1 patients or caregivers have self-reported interest in this study with 48 (72%) hearing about this via the registry.

As of April 2019 The first phase of PREFER is now complete with a total of 49 patients and caregivers having participated in the focus groups and interviews. The research team will now work out data transcription and analysis. They will then be ready to proceed to the next phase of the study where the results from the qualitative work will form the basis for a patient preference questionnaire - <http://www.imi-prefer.eu/news/news-item/?tarContentId=781078>

## New treatments in development

**Tideglusib** is an oral treatment developed by AMO Pharma. It is designed to reverse cognitive and behavioural deficits by stopping an enzyme that is overly expressed. Tideglusib has provided clinical benefit to the majority of adolescents and adults with congenital and juvenile-onset myotonic dystrophy after 12 weeks of treatment. Improvements in cognitive function, fatigue, the ability to perform activities of daily living, and certain neuromuscular symptoms were the most evident. Co-occurring autism symptoms were also improved in several subjects. The phase II clinical trial results are published here: [https://doi.org/10.1016/S0960-8966\(18\)30330-4](https://doi.org/10.1016/S0960-8966(18)30330-4). The UK DM Patient Registry supported recruitment onto this clinical trial.

AMO Pharma is developing this treatment in further clinical trials in the USA, Canada and the UK (Newcastle), in 6-16 year old children with congenital myotonic dystrophy. See: <https://www.clinicaltrialsregister.eu/ctr-search/trial/2016-004623-23/GB>

**Cannabinoid-based pharmaceuticals** are being developed by Nexien BioPharma for the treatment of myotonia, and myotonic dystrophy type 1 (DM1) and myotonic dystrophy type 2 (DM2). The company are set to discuss with the US Food and Drug Administration potential strategies for drug development and clinical studies. See: <https://www.businesswire.com/news/home/20190226005272/en/Nexien-BioPharma-File-Pre-IND-Meeting-Request-FDA>

**AT466** is a potential gene therapy being developed by Audentes Therapeutics. It uses adeno-associated viral (AAV) antisense-based therapy to prevent toxic DMPK gene expression and restore normal cell functioning. Pre-clinical (animal) studies are underway. See: <https://www.audentestx.com/myotonic-dystrophy-type-1/>

**Dyne Therapeutics** are developing their own delivery platform, known as FORCE™ to deliver nucleic acids (such as DNA and RNA) and other molecules to skeletal, cardiac and smooth muscle. This program is designed to reduce the gene expression for the treatment of rare diseases such as DM1. The company has completed pre-clinical studies and research indicates that their delivery platform may potentially help restore muscle health and strength. See: <https://www.dyne-tx.com/dyne-therapeutics-launches-with-50-million-series-a-to-develop-targeted-therapies-for-muscle-diseases/>

For updates on new clinical trials please visit: <https://clinicaltrials.gov/> and <https://www.clinicaltrialsregister.eu/ctr-search/search>

## Research publications through the UK DM Registry

In March 2018, “**Falls and resulting fractures in Myotonic Dystrophy: Results from a multinational retrospective survey**” authored by Dr Cecilia Jimenez-Moreno, was published online at: <https://doi.org/10.1016/j.nmd.2017.12.010>. The UK DM Patient Registry was used to distribute the survey about falls and fracture to DM1 patients.

### Results

- DM1 adults had 2.3x more risk of falling than a healthy adult aged over 65 years old
- Age was a significant predictor for falls in DM1
- Falls in DM1 are still an unpredicted and underestimated factor that requires attention

## **OPTIMISTIC study**

In August 2018, “**Cognitive behavioural therapy with optional graded exercise therapy in patients with severe fatigue with myotonic dystrophy type 1: a multicentre, single-blind, randomised trial**”, co-authored by Dr Cecilia Jimenez-Moreno, was published online at: [https://doi.org/10.1016/S1474-4422\(18\)30203-5](https://doi.org/10.1016/S1474-4422(18)30203-5). The UK DM Patient Registry supported recruitment onto this clinical trial which aimed to determine whether cognitive behavioural therapy optionally combined with graded exercise, compared with standard care alone, improved the health status of patients with myotonic dystrophy type 1.

### *Results*

Cognitive behavioural therapy (CBT) optionally combined with graded exercise decreased fatigue and improved physical activity and social participation, in patients with myotonic dystrophy who experience severe fatigue. CBT was safe, however, there was an increase in the amount of falls in this patient group, which the researchers suggest may have been caused by the patients being more physically active.

In September 2018, “**Eight years after an international workshop on myotonic dystrophy patient registries: case study of a global collaboration for a rare disease**” co-authored by Libby Wood and Hanns Lochmüller, was published at: <https://doi.org/10.1186/s13023-018-0889-0>

This paper continues the work from the ENMC workshop that was held in 2009 where a collection of key opinion leaders agreed upon a minimal core dataset for national DM patient registries.

In April 2018, a poster titled “**The UK Myotonic Dystrophy Patient Registry: A Key Tool in the Facilitation of Clinical Research**”, was presented at the 11th UK Neuromuscular Translational Research Conference. This is published at: [https://doi.org/10.1016/S0960-8966\(18\)30341-9](https://doi.org/10.1016/S0960-8966(18)30341-9)

This outlined the historical development of the registry from May 2012 and its key developments in assisting with clinical trial recruitment. An updated poster was presented in April 2019 at the 12th Annual Neuromuscular Translational Research Conference and is published in the Journal of Neuromuscular Diseases.

If you would like a copy of the updated poster please contact the registry curator.

In April 2018, a poster titled “**Can forced vital capacity (FVC) or maximal inspiratory pressure (MIP) be used to predict changes in mobility, swallowing and/or cough peak flow in patients with type 1 myotonic dystrophy?**” was presented at the 11th UK Neuromuscular Translational Research Conference. This is published at: [https://doi.org/10.1016/S0960-8966\(18\)30311-0](https://doi.org/10.1016/S0960-8966(18)30311-0)

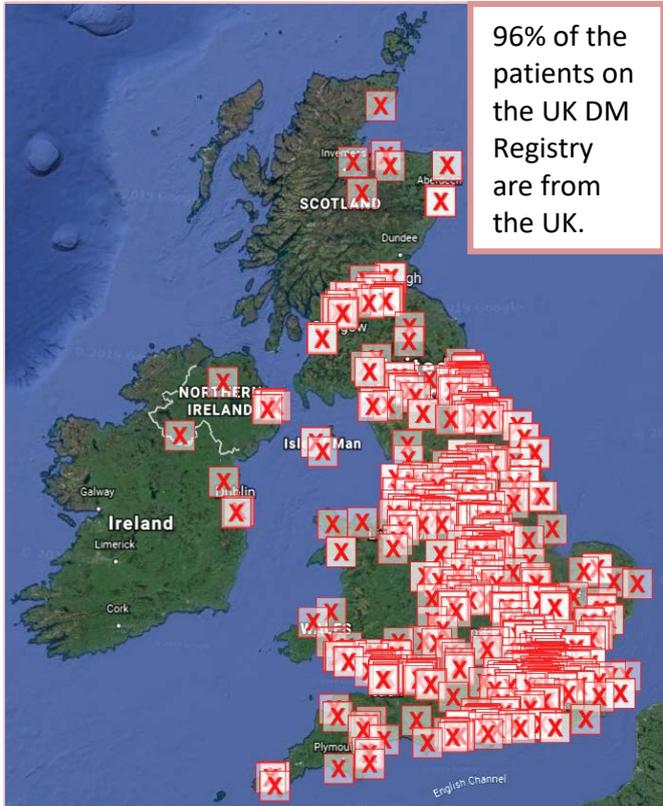
The UK DM Patient Registry supported recruitment onto the PHENO-DM1 study which was used to analyse this patient data and aimed to establish correlations between respiratory function and mobility, swallow function and cough peak flow in DM1 patients, and the results confirmed various correlations between these.

In April 2018, a poster titled “**AMO-02 (tideglusib) for the treatment of congenital and childhood onset myotonic dystrophy type 1**” was presented at the 11th UK Neuromuscular Translational Research Conference in April 2018. Details of this can be found on the previous page under the “New treatments in development” and “Tideglusib.”

**REMINDER** - If the registry is used to promote or assist with the recruitment for a clinical trial or research study all eligible patients will be contacted by the registry curator via email.

## 4. Registry update

The registry on average recruits **6** new participants per month with an average age of 44 years. As the amount of registrations continues to steadily increase, the registry continues to be a useful resource supporting academic and industry enquiries. This in turn can benefit the wider DM community by providing greater insights into the natural history of DM, the management and standard of care for DM.

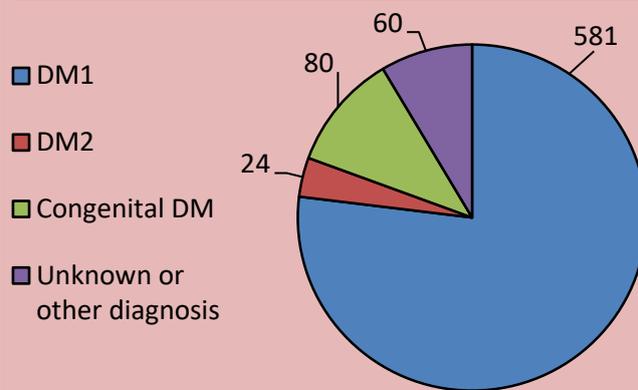


96% of the patients on the UK DM Registry are from the UK.

### Patient diagnosis

Of the 745 participants in the UK DM Patient Registry:

- 11% have a clinical diagnosis of congenital DM
- 78% have DM1
- 3% have DM2
- 8% have an unknown or other diagnosis



### Patient genetic diagnosis

There are 293 patients with genetic confirmation of DM1 and 5 patients with genetic confirmation of DM2.

### Patient reported outcomes

- 79% reported fatigue
- 75% reported myotonia
- 47% reported dysphagia (swallowing difficulties)

### Myotonia and fatigue

Previous research using the registry has found that there is a significant correlation between fatigue and myotonia.

- 61% of patients reported severe myotonia and severe fatigue
- 58% of patients reported mild myotonia and mild fatigue
- 50% of patients reported no myotonia or fatigue

### Clinician reported outcomes

Patients had an average age at heart condition diagnosis of 41 years.

Most patients (83%) have a diagnosis of conduction block or arrhythmia.

## 5. Upcoming events and new initiatives

**International Myotonic Dystrophy Consortium Meeting (IDMC-12)** is being held on 10-14<sup>th</sup> June in Gothenburg, Sweden. For further information and to register online, please visit:  
<https://idmc12.org/registration-hotel/registration/>

**Muscular Dystrophy Support Group** are hosting their 30<sup>th</sup> Annual Conference in Nottingham on 21/22<sup>nd</sup> June. For further information and to book online, please visit:  
<http://www.myotonicdystrophysupportgroup.org/annual-conference-book-online/>

**Myotonic Dystrophy Foundation** are hosting their Annual Conference in Philadelphia, PA on 13/14<sup>th</sup> September. For further information and to book online, please visit: <https://www.myotonic.org/2019-mdf-annual-conference>

Be sure to check out: <https://www.muscular dystrophyuk.org/events> for upcoming fundraising, campaigning and care/support events.

### Why should you join Share4Rare?



Share4Rare is a new digital platform that aims to address the needs of patients, families and researchers. The platform will provide accurate information about rare diseases and provide a safe space to interact and share information. For more information about the platform and why you should join, please visit:

<https://www.share4rare.org/news/10-reasons-join-share4rare>

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Thank you for reading this newsletter and being a part of the UK DM Patient Registry. In the coming months we will be re-consenting patients for the registry as the registry data is being securely transferred from Germany to the UK following the implementation of the EU General Data Protection Regulation (GDPR). The re-consent of registry participants is required to enable the change in location of stored data.

If you have any questions, feedback/suggestions or you would like to share your story, please contact [ben.porter@newcastle.ac.uk](mailto:ben.porter@newcastle.ac.uk)

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