

NEWSLETTER

NUMBER 3

WWW.APPROACHPROJECT.EU

An important MILESTONE for APPROACH

Welcome to the third edition of the APPROACH newsletter! 297 patients have now been included in the clinical study, with the final patient joining on April 3rd in Paris. The first patients who were included last year have already finished their month-six and month-twelve visits, and our thanks go to patients, doctors, nurses, and technicians for moving the study forward.

In this edition, we will focus on MRI imaging and the importance of each MRI image taken. One of our patients shares her experience of the MRI imaging procedure. We will also introduce you to the clinical team in Oslo, Norway, where a member of the Patient Council met some participants of the APPROACH study.

The success of APPROACH continues. We have assembled all of our baseline images, and analysis has started. All baseline blood and urine samples have also been collected and made available for analysis. Different laboratories will analyze blood and/or urine samples using their own specific technique. For example, biomarker analysis for all patients will be performed in one laboratory, with other analyses performed by other laboratories. All samples have now been shipped to the labs.

Clinical data collected during the base-



line visits will be released at the end of April to all the consortium partners involved in the APPROACH project. A first statistical analysis of these data will then begin.

Four presentations will be given at the World Congress on Osteoarthritis (OARS) in May in Toronto, Canada:

TWO ORAL PRESENTATIONS:

- one on our innovative patient recruitment process
- one on the different types of osteoarthritis, such as inflammatory or metabolic osteoarthritis.

TWO POSTER PRESENTATIONS:

- one on GaitSmart, which you experienced during your baseline visit
- one on variability during the acquisition of one type of MRI which is the reason some of you were asked to have MRI imaging twice.

Above all, the APPROACH study cannot succeed without you. Your involvement in follow-up during the study is of utmost importance to make APPROACH a worldwide success.

Thank you for your involvement, and we hope you enjoy reading the new edition of the newsletter.



Floris Lafeler
Principal Investigator
APPROACH cohort
UMC Utrecht



Agnes Lalande
Co-leader APPROACH cohort
Servier



Anne Karien Marijnissen
International Coordinator
APPROACH
UMC Utrecht

APPROACH AT

Diakonhjemmet Hospital Oslo, Norway

The department of Rheumatology at Diakonhjemmet Hospital in Oslo, Norway, is one of the clinical centres recruiting people with knee osteoarthritis for the APPROACH project. It is helping us to learn more about the disease and how to measure it – providing us with valuable input on how to create the best patient treatments in the future.

The Diakonhjemmet Hospital outpatient clinic performs almost forty thousand consultations per year, and many of our patients have osteoarthritis. We have recruited people with knee osteoarthritis, and thirty were included in the APPROACH study.

Groups of participants are examined by a team of medical doctors and medical students, with data collected via the outpatient clinic. Images are obtained at private imaging centres in Oslo, and all aspects of the project are coordinated by our dedicated study managers.

Osteoarthritis is a large research focus in our department, with most research to date focused on osteoarthritis in the hands. Several medical students in our study team have been involved in previous osteoarthritis studies, and our department is also leading studies on inflammatory joint diseases. We have experience in running large studies, including observational such as APPROACH and intervention studies.



Jon Skandsen, member of the APPROACH Patient Council

Hello, I am **Jon Skandsen**, a 59-year-old man and a computer software engineer by trade – however, I retired 6-7 years ago due to the burdens of my rheumatic diseases. I live in Oslo but grew up on Norway's west coast. I live with my wife and our two boys, who are now following their education and starting to shape their futures.

“Visiting the clinical site was a real learning experience. It gave me a deeper understanding of APPROACH.”

In my younger years I was always active in training, sports and hiking in the mountains. It is not that easy any more, but I try to do my best and still enjoy skiing, biking and the mountains, only at a slower pace.

My joint complaints started when I was a 24-year-old student. My main diagnosis is rheumatoid arthritis, but I also have osteoarthritis (OA) in my knees. Two years ago, I had a total knee replacement in my right knee, which is quite common for OA patients. A thumb needed to be operated on due to joint damage and an arthrodesis was performed: the joint was immobilized by fusing the bones together to relieve pain. Pain and fatigue have sadly become more and more dominant in my life. But I try to be active and keep up my spirits.

I am a permanent member of the Patient Council at Diakonhjemmet Hospital in Oslo, serving as patient representatives in research projects. I was also asked to volunteer as a member of the Patient Council in APPROACH.

During my stay at Diakonhjemmet Hospital I spoke to several participants and listened to what they had to say. There were a lot of tasks to be carried out, so it took quite some hours to complete the whole afternoon for everyone.

I enjoyed speaking to the study participants very much. Many were full of spirit and happy to volunteer. The patients were quite enthusiastic about the project and were happy to make an effort for the research on OA. In general, they also spoke very kindly about the warm welcome they received from the APPROACH staff.

There were also some comments from people who had fasted since the morning. Some of them didn't have the opportunity to eat until early evening. Some patients didn't mind, but others were clearly bothered by this. For the future visits, fasting is now no longer a prerequisite. Other patients were a little sad that APPROACH would not give a result which could help them in the near future.

Quick Facts

As a study participant in the APPROACH project, you will go to your clinical centre for a total of five visits. **The first visit** was referred to as the screening visit, which evaluated if you fitted the APPROACH study profile. **The second visit** was called the inclusion visit, during which baseline measurements were performed. **After 6, 12 and 24 months**, you will return to the clinical centre for follow-up visits. These allow the researchers to investigate how OA progresses over time.

At the end of 2018, Assistance Publique – Hôpitaux de Paris (France) screened its first patient. At the time of writing this newsletter (spring 2019), **all inclusion visits have been completed** and a total of 297 patients have entered the APPROACH study.

Jane Taylor (patient and Chair of the APPROACH Patient Council) and Alexander Duyndam (Lygature) **shared invaluable insights and key ingredients for successful patient engagement** in the APPROACH project, during the Innovative Medicines Initiative (IMI) Scientific Symposium in Brussels last October. APPROACH receives funding from IMI.

The APPROACH Patient Council was also presented as an example for patient engagement in clinical studies at the Lygature Partnerships MeetUp on 1 November 2018. Jane Taylor, chair of the Patient Council, and Harrie Weinans, APPROACH academic project leader, were guest speakers.

You can reach the APPROACH Patient Council at patientcouncil@lygature.org. All e-mails will be forwarded to the members of the council.

This newsletter appears in Dutch, English, French, Norwegian and Spanish and is available on the website (www.approachproject.eu).

On the website there is also more information about the project, latest news and tweets. Specific sections are available in each language.



I have been a member of the Patient Council now for little over two years. During this time, I have learned a lot from many people. First and foremost, from my clever colleagues in the Patient Council who have been very professional and insightful in their work. Likewise, collaborating with the very capable people concerned with the management of the APPROACH project, and who support the Patient Council, has been a joy. But also the good talks with the doctors and researchers at the Annual Meetings have been mutually fruitful, I believe.

The visit to the clinical site was very important, because now it was for real. Not just plans and discussions, but now I could see parts of the project being carried out in real life. That gave a deeper understanding of the project. If you haven't yet, you will soon receive an evaluation form from us. Please fill in the form to help improve the APPROACH project. In the next newsletter we will inform you on the results and how we used them.

THE APPROACH PATIENT COUNCIL

Ever since the formal start of APPROACH, the Patient Council has been actively involved in the project's design and implementation. From the beginning, it has provided 'the voice of the people' and has looked after the interests of the study participants. The Patient Council also plays an important role in developing communication materials and, as such, is explicitly involved in preparing this newsletter.

The Patient Council continues to follow closely the progress of the clinical study. As a participating patient, people like you are an essential link. It is therefore very important to hear how you experience the research and the communication around it. Of course, you can always discuss any personal medical questions with your research doctor. We imagine that you may also want to discuss your thoughts with the Patient Council, in which case we would like to hear from you.

Please contact us at patientcouncil@lygature.org.

All e-mails will be forwarded to the members of the council.

MRI:

Osteoarthritis viewed from all sides

An important part of the APPROACH study is the acquisition of Magnetic Resonance Imaging (MRI) data for your knee joint. Although 'normal' MRI-scans take approximately 20-25 minutes, the first two scans of the APPROACH study take about 45 minutes. So why does it take so long? And what is it used for?

In contrast to the X-ray images also being acquired in the APPROACH project, MRI is able to show all relevant structures of the knee joint, including bone, cartilage, menisci, ligaments, joint capsule and other tissues. It is very important to learn about the interplay between these structures in order to understand how these structures influence each other, and how this eventually leads to osteoarthritis development and progression (worsening).

The MRIs are obtained using standard clinical MR systems that are also used in a clinical context – for patients who are referred for an MRI scan for different

reasons. No contrast material is injected, and an MRI scan will take around 45 min. Of course, any reasons to avoid a scan, such as cardiac pacemakers will first be ruled out.

After the scan is completed, the images are assessed by experts at several centers, using different methods to analyze different components of the joint. These different analyses give insights into the severity of OA, the quality of cartilage and specific changes in the bone. The aim is to identify different OA phenotypes (bone phenotype versus cartilage phenotype). Assessments include so-called scoring approaches, where joint tissues are graded according to standardized scoring schemes. Expert radiologists score the images according to severity of tissue changes. These scores will be re-evaluated after each study visit in order to capture changes.

Alongside a 'regular' MRI-scan, additional scans are made with different characteristics. One of these additional sets of images, taken of your knee, will be used to measure your cartilage thickness and bone shape, and the changes in cartilage thickness and bone shape that may or may not occur over time. These measures help us to understand how these structures are involved in the disease process, including the rate at which they change and what can potentially be done about this.

Another set of scans will be used to measure some aspects of cartilage quality, and how the composition of the cartilage may change over time. This is based on the assumption that changes in cartilage quality (composition) occur before tissue starts to be lost – something that opens up a window for therapy at a stage where the disease is still in its early phase.

... The most important thing is to relax, think about something fun and you'll forget the noise and time flies. I even fell asleep for a bit.'

MRI: AN INSIDE VIEW

'I had an MRI-scan a few years ago, but that was in a dark room. This time it was completely different. The researchers were very friendly, I had a warm welcome, and the whole procedure was explained. Then I had to lie down on the table. I received earplugs, a hairnet and headphones. They even asked me which music I prefer, but it doesn't matter because you won't hear anything due to the noise of the scanner.'

The researchers checked whether everything was fine and then the table was slid into the scanner. It's good to know that you do not go into the scanner completely. They only scan your knee, so your head and part of your chest will be out of the scanner. I think this is a great advantage for people who are a little bit claustrophobic.

You also get a button you need to press in case of emergency. You will not need it, but it is a nice idea that there is a possibility to communicate with the people making the scan. They also asked me a few times if everything was fine. The most important thing is to relax, think about something fun and you'll forget the noise and time flies. I even fell asleep for a bit.'

Different types of MRI-scans give different information from various tissues



MRI 1:
Analysis of cartilage volume and severity of osteoarthritis



MRI 2:
Measurement of collagen quality

