The 2013 NOAR Newsletter is an update on the work of the Norfolk Arthritis Register over the last year, if you would like any copies of the papers mentioned in this Newsletter or need to contact us our details are: The NOAR Office, Norwich Medical School, University of East Anglia, Norwich, NR4 7TJ. Tel: 01603 597204 Email: arcnoar@manchester.ac.uk. Website: www.manchester.ac.uk/medicine/arc/noar. We would like to thank everyone who has helped with the NOAR study; the findings have been invaluable in improving the knowledge we have of inflammatory polyarthritis (IP) and how it affects the lives of people living with this condition.

**Current Work**

**Recruitment and follow-up**

Now in its 23rd year, NOAR continues to recruit and follow people who develop Inflammatory Polyarthritis (IP). We have made some changes, in that we are only recruiting people who are registered with GP Practices which are also taking part in the EPIC Study. The length of follow-up has also changed, with people being followed for two years if they joined us since 2009. NOAR participants who joined us before 2009 will know that we are following them for much longer - anything up to 20 years for those people recruited in the early 1990’s.

**EPIC-2-NOAR LINK**

We are continuing to develop our links with this study group to further investigate whether we can identify the causes of IP. It is for this reason that we decided to only recruit NOAR participants from GP practices who have also taken part in the EPIC study for the time being. This link has provided us with useful information as some EPIC participants have subsequently gone on to develop IP and we have been able to access the information given to the EPIC study by NOAR participants who have agreed for us to use this information.

**Cardiovascular Study**

Recruitment for this study was completed in 2009 with nearly 400 people consenting to take part. We are still carrying out the 5th year scans and X-rays and we hope to have these completed by the end of 2013.

**RAMS study**

The nurses have been working on a second research study also run by Manchester University. We recruit people who have developed inflammatory arthritis and who are about to start taking Methotrexate for the first time, on it’s own or in combination with other medication. Methotrexate is the drug most often used to treat people with IP because of its efficacy in the majority of people. However, there is a small, but significant, group of people who do not respond well to this medication and who find that other medications work better for them. The RAMS study participants are seen four times in a year and the aim is to find out more about the patients perspective when taking Methotrexate and to understand which people benefit most from taking this treatment. The Manchester research team analyse blood samples and look at genetic patterns as well as analysing information collected when we see participants. Some of you may have been asked to participate in both studies, and if this is the case we try to combine appointments to minimise the visits needed.

**Morbid obesity is associated with higher disability in early Inflammatory Arthritis (IP)**

This study showed that morbid obesity (BMI of over 35) was significantly associated with worse functional disability as shown by self-completed Health Assessment Questionnaires (HAQs). Since arthritis can cause problems with mobility and simple daily functioning, this study confirms that excess weight can also make this worse. The study concluded that this should be taken into account when caring for patients, and encouraging people to try and achieve a normal weight could prove beneficial.

*Jenny Humphrey et al 2012*

**A risk score to identify individuals at higher risk of future Inflammatory Polyarthritis**

*Results from the European Prospective Investigation of Cancer (Norfolk) and the Norfolk Arthritis Register (The EPIC-NOAR study)*

We have previously identified a number of lifestyle factors associated with future risk of developing inflammatory polyarthritis (IP) and rheumatoid arthritis (RA). Such information may possibly be of use to identify people in the general population who are “at risk” of developing IP and RA. The objective is to develop a prediction score for this which would be available to general physicians and health professionals in Primary Care.

*M. Lahiri, S. Verstappen, D. Symmons, I. Bruce (2012)*
The effect of pregnancy outcomes on the development of RA

Previous evidence suggests that women with a history of adverse pregnancy outcomes (APOs; previous miscarriage or stillbirth) may be at greater risk of developing rheumatoid arthritis, and further research indicated that these women were more likely to develop a more severe form of the disease. When we recruit female NOAR participants we ask about previous pregnancies. When our nurses examine your joints they record whether the joints are tender and/or swollen and their range of movement. In addition we use Health Assessment Questionnaires (HAQS) which each participant is asked to complete to enable us to assess the progress of the disease. This information has shown that women who have had 2 or more APO’s before developing RA go on to have more problems than those who have not had an APO.

*Deborah Symmons, Diane Bunn et al 2012*

A risk score to identify individuals at higher risk of future Inflammatory Polyarthritis: Results from the European Prospective Investigation of Cancer (Norfolk) and the Norfolk Arthritis Register (The EPIC-NOAR study)

We have previously identified a number of lifestyle factors associated with future risk of developing inflammatory polyarthritis (IP) and rheumatoid arthritis (RA). Such information may possibly be of use to identify people in the general population who are “at risk” of developing IP and RA. The objective is to develop a prediction score for this which would be available to general physicians and health professionals in Primary Care.

*M. Lahiri, S. Verstappen, D. Symmons, I. Bruce (2012)*

Lung Disease and Arthritis

Some of our NOAR participants have been asked to undertake a spirometry test as part of their assessment. The reason for this was to establish whether people who have RA have more significant lung disease than the general population. The results have shown that smoking is a significant reason for developing obstructive lung disease but if you have RA and do not smoke there is no increased risk. This would indicate that we should try and encourage smokers to reduce/give up smoking to avoid long term lung damage.

*Suzanne Verstappen, Mark Lunt, Tarnya Marshall et al 2012*

The incidence of rheumatoid arthritis in the UK: comparisons using the 2010 ACR/EULAR classification criteria and the 1987 ACR classification criteria. Results from the Norfolk Arthritis Register

When a person develops pain and swelling in their joints clinicians use various methods to accurately diagnose the condition. One of these is the American College of Rheumatology (ACR) criteria and another is European league against Rheumatism (EULAR). The criteria was changed in 2010 and the objectives of this study were to estimate the age and sex-specific incidence rates (IR) of RA in Norfolk, using the new criteria, and to compare those with IRs estimated using the previously used 1987 ACR criteria. All patients notified to NOAR from 1990-5 with symptom onset in 1990 were included.

By using the 2010 criteria we identified similar numbers of patients as having RA at baseline, as the 1987 criteria would have taken up to 5 years to identify. This would support the continued use of the new criteria to assist with the early diagnosis of RA which improves long term disease outcomes.

*Jenny Humphrey, Deborah Symmons, Tarnya Marshall et al 2012*

Staff

There has been a change in staff as Diane Bunn our Clinical Manager who had worked for NOAR for 21 years left to begin working towards a PhD at UEA. Many of you will have had contact with Diane at some point and may like to know that she has also recently become a grandmother. Jackie Chipping has taken on many of Diane’s responsibilities. The other research nurses have increased their working hours and continue to see people in clinics or at home. Jenny Doyle also joined us as a permanent team member in April 2012. Karen Durrant the NOAR Administrator is responsible for the day-to-day running of the NOAR office and is the first point of contact for any queries regarding appointments.

Funding

NOAR continues to receive its core funding from Arthritis Research UK, the leading medical charity for research into musculoskeletal disorders. Further information about arthritis and other musculoskeletal conditions can be found on their website: [www.arthritisresearchuk.org](http://www.arthritisresearchuk.org).

Latest News

NoAR will be holding a Participant Information Event on Monday 23rd September 2013 from 4-7pm at The Ben Gooch Lecture Theatre, NNUH (light refreshments provided). This will be your chance to meet the team from Manchester University who carry out all the research using the NOAR data, listen to talks on the latest findings and ask questions of the experts. To book tickets or for more information please contact the office on the contact numbers above.