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Introduction

Do you feel that your rheumatoid arthritis (RA) is under control? Do you have any or all of the following symptoms despite being on treatment: fatigue, morning stiffness, loss of appetite, flu-like symptoms, difficulty in moving your joints because they are painful, tender or swollen?

National guidelines advise that a DAS assessment should be carried out at least twice each year, but you should expect to have your DAS measured at every consultation unless otherwise agreed with your doctor or nurse.

Most people with rheumatoid arthritis (RA) find that their symptoms tend to vary from day to day. This depends on a number of factors including how well your treatment is working. For this reason, your treatment should be regularly assessed so that adjustments can be made to ensure that your disease is kept as quiet and controlled as possible.

It is important for you to work with your team to ensure you understand your disease and how well it is being controlled. The team will want to know about your symptoms and how the condition affects your body and your everyday life. This helps them understand whether your treatment is right for you. There are many ways to assess how active your RA inflammation is. One of these is known as DAS. This booklet will help you to understand what DAS is.

The wallet card below can be used to keep track of your appointments with your doctor or nurse, and as a record of your latest DAS.

DAS golden rules

- You should expect to have your DAS measured at every consultation
- You should set a DAS goal with your doctor or nurse
- The goal of treatment is to achieve the best disease state (lowest DAS) possible for you
What is DAS?

DAS stands for ‘disease activity score’ and is a measurement of rheumatoid arthritis activity. Rather like blood glucose monitoring in diabetes, DAS gives you a number which will tell you how well controlled your RA is, and whether your treatment is working for you.

DAS calculation

There are several ways to calculate the DAS. But in each case, your doctor or nurse will work out your DAS using a special calculator, based on several tests.

Joint examination

One of these tests is an examination of 28 joints in your hands (20 joints), wrists (2), elbows (2), shoulders (2) and knees (2). The joints are squeezed and the number of tender and swollen joints are calculated.

Blood tests

There are two blood tests that could be performed as part of DAS:

*The erythrocyte sedimentation rate (ESR)*

The erythrocyte sedimentation rate (ESR) is an indication of the degree of inflammation in the body. It is actually a measurement of the speed with which red blood cells fall in a test tube of blood.

When the inflammation in the blood goes up, these inflammatory substances attach to red blood cells and the cells fall faster. The ESR doesn’t point to any particular disease, but is a general indication of the amount of inflammation in the body and one of the aims of treatment is to reduce the ESR to normal levels.

*The C-reactive protein (CRP)*

C-reactive protein (CRP) also indicates the amount of inflammation present. It is thought to be a more sensitive measure of inflammation than the ESR as in a normal situation there is very little if any CRP in the blood. As with the ESR, CRP is a general measure and is not specific to RA.

Personal assessment

Another measure that forms part of DAS is a personal assessment of how you feel your condition is. Your doctor or nurse will ask you to mark on a Visual Analogue Scale (please see below) the level of pain and discomfort you feel on the day of your assessment.

Patients global assessment of disease activity

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<thead>
<tr>
<th>Not active</th>
<th>Extremely active</th>
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It may help to think about how you have been feeling in the days leading up to your consultation. It may also be helpful to keep other information from time to time, such as noting the start of any new symptoms or when symptoms are particularly bad.

**Also available via NRAS...**
Why don’t you take a look at the ‘Raise it with your doctor’ booklet, which you can use to track your symptoms. Or alternatively there is a new online DAS tracker tool, available at the NRAS website.
For more information on the DAS examination, take a look at the ‘Know about your DAS’ DVD.

**Why is it important to know about your DAS?**
Your DAS is a measure of your RA activity and how well it is responding to treatment. Treatments can ‘switch off’ the inflammation associated with RA, slowing down or sometimes even stopping the joint damage that causes pain and disability. Deciding on the best treatment to control the disease for each person is important.

The table below shows what different levels of DAS represent:

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<tr>
<th>DAS</th>
<th>Implication</th>
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<tr>
<td>Less than 2.6</td>
<td>Disease remission. Usually no action necessary</td>
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<tr>
<td>2.6 to 3.2</td>
<td>Low disease activity. May merit change in therapy for some patients</td>
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<tr>
<td>3.2 to 5.1</td>
<td>Moderate disease activity. May merit change in therapy for some patients</td>
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<tr>
<td>More than 5.1</td>
<td>Severe disease activity (likely to require change in therapy)</td>
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How will your DAS affect treatment of your rheumatoid arthritis?

The goal of treatment is to achieve remission – to be symptom free or have significantly reduced symptoms (DAS less than 2.6). This is not possible for everyone, in which case the aim is to achieve the best disease state (lowest DAS) possible for you.

The DAS helps you and your doctor or nurse decide whether you might need a treatment change. This may involve increasing, decreasing or even stopping the dose of a particular treatment. It may also involve starting an additional new treatment or giving a steroid injection.

Current treatments include traditional disease-modifying anti-rheumatic drugs (DMARDS) and the newer biologic therapies which are given either by self-administered injection under the skin (like a diabetic would give themselves insulin) or by intravenous drip.

Your doctor or nurse can tell you more about the treatment options available to you and which ones they believe to be most appropriate. If you feel your treatment isn’t working for you, then raise this with your doctor or nurse and ask to have your DAS measured.

Sometimes, factors other than the symptoms of RA can affect your DAS. For example, if you are suffering with another illness at the same time, this can lead to a higher DAS. However, your doctor or nurse should be able to recognise this and help to treat those symptoms separately.

How often should your DAS be measured?

You should expect to have your DAS measured at every consultation unless agreed otherwise with your doctor or nurse. In some circumstances, for example when being assessed for your suitability to receive biologic therapies, an extra clinic visit may be required specifically to measure DAS.
What happens if you have other problems that aren’t assessed by DAS?

Pain and fatigue are not measured in the DAS, but your doctor or nurse should take these factors into account and document them. Equally, heart or lung problems related to RA may be additional factors that your doctor or nurse will consider when assessing your treatment benefit.

Research shows that the DAS28 joint measurement is the best routine tool for measuring RA symptoms. However, not all joints are assessed by DAS. When you are being assessed, you should tell your doctor or nurse if you are having any other problems so that they can record these. For example, the feet and ankles are not included in the tender and swollen joint count, so if you are experiencing pain in your feet and/or ankles, you should talk to your healthcare team about this.

Changes in your treatment (for example if you have recently started or stopped steroids) will need to be considered when assessing your DAS. It is very important also to mention any symptoms which you think might be side effects related to your current treatment.

Know your DAS and stay one step ahead of your RA

Why don’t you ask your doctor or nurse what the recorded DAS measurement is when they assess it? This will allow both you and your medical team to understand the management of your disease and enable them to set realistic goals for your treatment. NRAS provide a number of tools, helping you to keep a track of your RA symptoms.

Also available via NRAS...

Why don’t you take a look at the new HealthUnlocked online RA tracker, available via the NRAS website: [www.nras.org.uk](http://www.nras.org.uk) or call 0800 298 7650 for more information.
Other tests for your rheumatoid arthritis

DAS is most useful for measuring how your RA responds to treatment. Other investigations include ultrasound, physical examinations, blood tests, X-rays and other forms of imaging such as MRI.

Regardless of how your RA is monitored, it is important that your doctor or nurse works with you to ensure that your management plan does work well for you.

Drug treatment is very likely to be part of this but physiotherapy, podiatry and occupational therapy or sometimes even surgery may be offered.

There are also other blood tests which are used to help diagnose and treat rheumatoid arthritis, these include:

Rheumatoid factor and anti-CCP

Serostatus refers to the presence or absence of autoantibodies in the blood of a person with RA. An autoantibody is a marker which appears when the body’s immune system has turned against its own tissues. The most common autoantibodies in RA are rheumatoid factor (RF) and anti-CCP antibodies (sometimes referred to as anti-citrullinated peptide antibodies or ACPA).

An understanding of your serostatus can help identify whether you are more likely to respond to a specific drug. Patients with autoantibodies also have a greater likelihood of developing joint damage, and so early and appropriate treatment is all the more important.

Overall, around 75-80% of RA patients ultimately develop autoantibodies. In some patients they are present before symptoms develop and can be helpful for making a diagnosis, whereas in others they develop later in the disease. Anti-CCP is rarely found in other conditions whereas RF can be found in other diseases and even in completely healthy people.

The identification of other markers of disease progression in RA is an area of active research.
Record of DAS

Once your doctor or nurse has measured your DAS you can keep a track of your progress in the table below. You may also find it useful to note the date and time of your next appointment.

Alternatively, why don’t you use the pull out appointment card provided at the front of this booklet.

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Also available via NRAS...

Or you could keep a track of your DAS and upcoming appointments using the HealthUnlocked online RA tracker, available via the NRAS website.

Comments

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Comments
Further information

Achieving a better life for people living with rheumatoid arthritis (RA) is the primary goal of the National Rheumatoid Arthritis Society (NRAS). One of the ways we achieve this is by providing high quality health and social care information for people living with RA, their families, friends and carers.

Are you a member of NRAS?
Join today by visiting www.nras.org.uk or call 0800 298 7650

For further copies of this booklet, please contact the NRAS helpline on: 0800 298 7650 or visit: www.nras.org.uk/DAS

A ‘Know about your DAS’ DVD is also available to request or download from the NRAS website.

NRAS registered charity number: 1086976
Scottish charity number: SC039721
RCUKCOMM00066a
Date of preparation: September 2011
Name: ___________________________________________

Contact details: __________________________________________

Emergency contact details: __________________________________________

Name of consultant: __________________________________________

Condition and treatment info: I have rheumatoid arthritis and currently I am taking (name of treatment)

I am sero-positive/sero-negative [delete where appropriate]

National Rheumatoid Arthritis Society 0800 298 7650 www.nras.org.uk

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Scottish charity number: SCO39721

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