About Rheumatic and musculoskeletal diseases
Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints, but can also affect the muscles, other tissues and internal organs. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.

The burden of rheumatic diseases

Social

- Rheumatic diseases are widely prevalent in present-day society, with substantial negative effects on health and quality of life.
- The burden of rheumatic diseases on people and society is expected to increase.

Economic

- Rheumatic diseases are the most common cause of severe long-term pain and physical disability, and in Europe, 20 to 30% of adults are affected at any one time.
- Rheumatic diseases can also have a profound effect on absence from work. They are the single biggest cause of both sick leave and premature retirement, causing physical disability.
- They are also a common reason for claiming disability pensions which impacts a country's economy.

Emotional

- Two in five people with a rheumatic disease are limited in their everyday activities.
- The pain and disability caused by a rheumatic disease can have an impact on the emotional well-being and mental health of a person.
- The prevalence of clinical anxiety and clinical depression in those with a rheumatic disease is about twice that seen in the general population.
- Rheumatic diseases not only affect the people suffering from them, but also their families who bear significant burden in terms of high financial costs, time and personal commitment to ensure relatives receive the necessary care and treatment.

Rheumatic disease risk factors

The underlying cause of most rheumatic diseases is unknown. However, several risk factors have been identified that increase the likelihood of developing the condition.

Obesity

- The long-term consequences rheumatic diseases have been shown to be more detrimental when a person is clinically obese or overweight. Between 1985 and 2007, the incidence of rheumatoid arthritis (RA) rose by an increment of 9.2 per 100,000 among women, with obesity accounting for just over half of this increase.

Smoking

- Smoking is a major risk factor for developing rheumatoid arthritis, it decreases the effectiveness of drugs prescribed to treat rheumatoid arthritis and can be a barrier to engaging in activities that may relieve symptoms, such as exercise. Smoking has been shown to be a major preventable risk factor for several rheumatic diseases.
Gender and age

- The prevalence of musculoskeletal conditions is higher among women and increases markedly with age.\(^3\) Osteoarthritis is particularly likely to increase in prevalence with an aging population\(^{10}\)

Lack of physical activity

- A physically active lifestyle is associated with a lower prevalence of musculoskeletal disorders\(^{11}\)

Diagnosis

- Diagnosing rheumatic diseases can be difficult because there are more than 200 and they often share the same symptoms\(^{3}\).
- However, early diagnosis and treatment is important because it has been shown to help reduce pain and also to slow and even prevent disease progression\(^{12-14}\).
- Whilst some rheumatic diseases can be identified by a physician based on signs and symptoms, a diagnosis often needs to be confirmed in a hospital setting by performing a physical examination or ordering specific laboratory tests, and undertaking imaging investigations\(^{3}\).

Treatment

Most rheumatic diseases cannot be cured, but in many cases they can be managed so that patients can lead a full life. Both pharmacological and non-pharmacological therapies are important as part of a complete management programme.

Non-pharmacological

- Often the first line of treatment for most rheumatic diseases consists of lifestyle changes such as a programme of physical exercise, an appropriate diet and plenty of sleep\(^{13}\).
- When some diseases are more severe, surgery may be necessary to provide significant pain relief and to facilitate an active lifestyle, despite not being able cure the disease.

Pharmacological

- **DMARDs**: traditional disease-modifying anti-rheumatic drugs (DMARDs) combat disease symptoms and slow down progressive joint destruction. They impact disease progression by curbing the underlying processes that cause certain forms of inflammatory arthritis including RA, ankylosing spondylitis, and psoriatic arthritis. DMARDs are often used in combination with one another, or with a biologic or non-steroid anti-inflammatory drugs (NSAIDs)\(^{15,16}\).
- **Biologics**: biologics impact disease progression in inflammatory rheumatic diseases. They are genetically-engineered drugs originating from a living organism that have specific targets within the immune system\(^{17}\).
- **Glucocorticoids**: glucocorticoids control the symptoms of inflammatory rheumatic diseases.\(^{18}\) They are anti-inflammatory hormones related to cortisol, a steroid produced naturally in the body. Despite their benefits, glucocorticoids are associated with significant side effects including diabetes, osteoporosis, hypertension, cataracts, and susceptibility to infections. As such they are often prescribed in combination and the dose is usually reduced as soon as possible\(^{16}\).
- **NSAIDs**: non-steroidal anti-inflammatory drugs (NSAIDs) help control the symptoms of all rheumatic diseases by reducing pain, swelling, and inflammation in the joints. However, they do not slow down the progression of the disease\(^{19}\).
- **Biosimilars**: in recent years, several biosimilar products have come to market, including the first biosimilar monoclonal antibody (mAb) CT-P13 (biosimilar infliximab), which is approved in Europe for treatment of rheumatoid arthritis (RA), ankylosing spondylitis (AS), psoriatic arthritis (PsA), psoriasis (Ps), Crohn's disease (CD) and ulcerative colitis UC\(^{20}\).
Further Information
If you have any questions or require any additional information before, during or following the congress please contact the EULAR Press Office on

Email: eularpressoffice@cohnwolfe.com
Press office no: +44 (0) 20 7331 5442
Twitter: https://twitter.com/EULAR_press
YouTube: Eular Pressoffice

References
19. American College of Rheumatology; NSAIDs: Nonsteroidal Anti-inflammatory Drugs. Available at; http://www.rheumatology.org/Practice/Clinical/Patients/Medications/NSAIDs_Nonsteroidal_Anti-inflammatory_Drugs/ [Last accessed May 2017]