## Driving musculoskeletal health for Europe: EUMUSC.NET

Indirizzare la salute muscolo-scheletrica per l'Europa: EUMUSC.NET

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Musculoskeletal conditions (MSC's) affect a quarter of all adults across Europe (1) and are the single biggest cause of physical disability in the EU. MSC's are the second most common complaint underlying long-term treatment, accounting for a quarter of all Europeans who undergo long-term treatment (1).

They therefore incur major health care

costs (2). These conditions are the biggest cause of physical disability and incur major social care costs (3). They have a major influence on the rates of short and longterm sickness absence and are a major cause of lost productivity (3- Major and Chronic Diseases Report 2007). Health, social and economic statistics highlight this enormous burden (Table I).

## **Table I - Impact of Musculoskeletal Conditions - Some Key Facts.**

- 32% of adults in Europe, 44% of those 55+ years, have experienced in the preceding week pain affecting their muscles, joints, neck or back which affected their daily activities (1).
- 25% of adults in Europe have experienced at some point in their life chronic restrictive musculoskeletal pain lasting more than 3 months (1).
- MSC's are the 7th leading cause of mortality and morbidity from Non Communicable Diseases in the WHO Europe Region (4).
- People with arthritis endure significant limitations on everyday life due to unmanaged pain (5).
- · People with Rheumatoid Arthritis (RA) are twice as likely to suffer depression as the general population (6).
- Patients with RA suffer from anxiety, depression and low self-esteem in part due to the loss of the ability to carry out daily functions (7).
- In the UK it is estimated that one in five adults will consult primary care for a musculoskeletal problem during a 12 month period (8).
- Health care costs for RA are high. Outpatient costs exceed in-patient costs with medication costs being an important component (9).
- It is estimated that there 1.9 million patients with a diagnosis of RA in the EU27 with an estimated total cost of 24 billion Euro (10).
- In Finland in 2009 24% of recipients of disability pensions had diseases of the musculoskeletal system, second only to mental health (45%) as the most common diagnosis (11).
- Data from Scandinavia (12), the UK and The Netherlands (13) shows MSC's to have a major influence on rates
  of sickness absence.
- The latest European Working Conditions Survey showed that nearly one quarter of workers in the EU experience work related backache and over 20% have work related muscular pain (14).
- In Germany in 2000, 6.7 million persons with musculoskeletal conditions accounted for 28% of all sick leave days, with injuries accounting for a further 12.9% (Indicators for Monitoring Musculoskeletal Problems and Conditions Report 2003).
- In Germany in 2010 back pain continued to be the number one cause of lost work days (15).
- In Germany and Norway, musculoskeletal injuries and disorders caused more than half of all sickness absence longer than two weeks (13, 16).
- In short term sickness absence (less than 1-2 weeks), musculoskeletal health problems are second only to respiratory disorders (17).

Corresponding author: Anthony D. Woolf Project Leader, Bone & Joint Research Group, The Knowledge Spa, Royal Cornwall Hospital, Treliske, Truro TR1 3HD, UK E-mail: eumusc.net@cornwall.nhs.uk Of greatest concern is that the prevalence of MSC's and associated disability will increase dramatically as the size of the aging population, obesity and lack of physical activity all increase across Europe.

There are effective ways to prevent and manage MSC's with evidence-based guidelines and strategies for prevention and management.

There are numerous guidelines for the management of various musculoskeletal conditions developed at a national, regional and international level. In addition there are pan-European guidelines for the prevention and treatment of the full spectrum of musculoskeletal conditions developed by the European Bone and Joint Health Strategies Project (S!2.304.598) (18). However, there is still little knowledge as to whether any of these guidelines have been implemented, whether they have influenced clinical practice and whether they have altered clinical outcomes.

There is clearly a need for more focused implementation of guidelines and a need to find better ways of achieving this.

Studies have examined what is actually happening for the management of musculoskeletal conditions in different European countries and there is evidence of differences which will lead to different outcomes. For example, surveys across different European countries have shown different approaches by both people with musculoskeletal conditions and by physicians to the management of musculoskeletal pain (19).

There are also differences in rates of joint replacement surgery across different European countries (20). Despite the fact that there are few differences in the epidemiology of MSC's, the percentage of the population undergoing long-term treatment varies significantly between countries, from 11% in France to 39% in Austria. These facts indicates possible inequities in or different approaches to care across Europe.

The issues extend beyond Europe; over many years there has been concerted action by professional and patient organisations, such as the Bone and Joint Decade (www.boneandjointdecade.org) to improve the prevention and management of MSC's. Despite these efforts, awareness of musculoskeletal conditions among opinion formers and policy makers is varied.

The WHO European Strategy for Non Communicable Diseases (4) recognises the importance of musculoskeletal conditions, but the WHO Global strategy for non-communicable diseases (21) only considers the prevention and control of cardiovascular diseases, diabetes, cancers and chronic respiratory.

There is a lack of recognition of the growing threat of physical disability through MSC's in an aging population that will need to be increasingly self-supporting.

There is therefore a large and growing burden of musculoskeletal conditions across Europe and globally; evidence of differences in care between countries; and failure to implement evidence-based interventions that have enormous potential to reduce this burden.

Key barriers to optimising musculoskeletal health that have been identified are:

- lack of priority e.g. not included in various policies for non-communicable diseases:
- 2) lack of awareness and knowledge of the impact (epidemiology, costs etc.) by policy makers e.g. lack of routinely collected indicators that are specifically relevant to musculoskeletal conditions to enable the burden to be monitored:
- 3) lack of agreed quality indicators that are used by health providers.

EUMUSC.NET is a 3-year project that began in February 2010, which aims to address and overcome these problems. Supported by the European Community (EC Community Action in the Field of Health 2008-2013), the project is a network of institutions, researchers and individuals in 22 organisations across 17 countries, working with the support of EULAR. It is focused on raising the awareness of musculoskeletal health and harmonising the care of rheumatic and musculoskeletal conditions across Europe. The EUMUSC.NET project is establishing a standard of information, accessible to pa-

tients, healthcare professionals and policy informers alike relating to:

- the impact that MSC's have on individuals and society,
- the Standards of Care that patients should be receiving for osteoarthritis and rheumatoid arthritis,
- Health Care Quality Indicators to show whether these standards are being delivered by health care providers,
- identified barriers and facilitators that affect the local implementation of Standards of Care,
- good practice that can be highlighted and relayed throughout Europe,
- recommendations to improve the delivery of Standards of Care across the Europe.

The EUMUSC.NET project is organised into a series of interrelated Work Packages, which will result in a unified, relevant and systematic web-based information resource that is www.eumusc.net

The first work package, led by Royal Cornwall Hospitals Trust, UK is determining the impact that MSC's have on individuals and society and is delivering an atlas of the burden of musculoskeletal conditions across Europe. Indicators of musculoskeletal health are being agreed that can be collected in all European countries so that standardised information can be available. The aim, in the long term, is for much of the relevant data to be collected routinely by integrating with exisitng health monitoring systems e.g. EHIS. This data will identify inequalities in outcomes across Member States and act as a driver for their reduction.

The second work package, led by Medizinische Universität Wien, Austria is selecting a core set of patient centred standards of care that individuals across Europe with OA and RA should be receiving from their healthcare providers.

The selection is being made from existing evidence-based guidelines and recommendations, such as EULAR. A patient based leaflet alongside primary care practitioner guidelines is being produced with the aim of increasing the implementation of high-quality systematic care based on relevant

standards of care. The third work package, led by Lund University, Sweden will establish a set of relevant Health Care Quality Indicators to monitor and evaluate the implementation of the selected standards of care. These indicators will be included in an audit tool that will be piloted in 4 countries. In the future it could be used in surveys across Europe to provide updated assessments of the care received by patients with MSC.

The fourth work package, led by Diakonhjemmet Sykehus AS, Norway will conduct surveys and interviews of health care users and providers to identify barriers and facilitators to the implementation of the selected standards of care and to identify good practices that will act as gold standards to be communicated across Europe. Evidence based policy recommendations for the implementation of a Community strategy on musculoskeletal conditions will be developed from the findings.

At the heart of the project lies the ability to increase the political salience of reducing the burden of musculoskeletal conditions on both individuals and society. This includes:

- Recognising the importance of musculoskeletal health.
- Promoting the implementation of evidence based strategies.
- Giving priority for research and programmes that will lead to better musculoskeletal health taking into account health inequalities.
- Keeping people at work despite their musculoskeletal condition.
- Recognising the importance of integrating musculoskeletal health policy with those of other chronic diseases as well as those relating to social, education, transportation and housing in order to initiate a reduction in interactive burden as well as cohesive and comprehensive wellbeing.

EUMUSC.NET will be sustained by integrating its activities and information from 2013 with EULAR to create a live, long-term and relevant surveillance and information network for musculoskeletal health across Europe.

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