



# Musculoskeletal research

The scope of musculoskeletal clinical trials in Australia

A RESEARCH PROJECT PLAIN LANGUAGE SUMMARY

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**Grant:** \$24,000

## Background

In November 2012 the Board of Arthritis and Osteoporosis Victoria (*now Musculoskeletal Australia*) approved the funding of the research project, *The scope of musculoskeletal clinical trials in Australia*, as part of our Project Grants for 2012-13.

The aim of this project was to gather information about the trials relating to musculoskeletal conditions in Australia. The project was specifically looking at:

- the trials currently being performed in Australia
- the conditions, interventions or treatments being studied
- the researchers involved
- funding
- where the trials are being published
- how Australia compares to the rest of the world when it comes to musculoskeletal clinical trials.

## Musculoskeletal conditions in Australia

Musculoskeletal conditions are a common cause of chronic pain and disability. They affect 6.1 million (26.9%) of the Australian population and cost the Australian economy \$55.1 billion, including direct health costs, lost productivity and reduced quality of life.<sup>i</sup>

As our population ages over the next two decades, more and more people will develop a musculoskeletal condition. By 2032, it is projected that the number of cases of arthritis and other musculoskeletal conditions will increase by 43% to 8.7 million (a rise of 2.6 million), affecting 30.2% of the population.<sup>i</sup>

## The project

To obtain the information they needed for this project, researchers from several institutions, led by the Monash Department of Clinical Epidemiology, Cabrini Hospital examined the following:

- National Health and Medical Research Council funding of musculoskeletal clinical trials in the last five years (2009 to 2013),
- musculoskeletal clinical trials that have been registered in the last two years (2011 to 2012) in either the Australian and New Zealand Clinical Trials Registry or another trials registry, and
- musculoskeletal clinical trials published in one of 37 top general and internal medicine or musculoskeletal specific journals in the last two years (2011 to 2012).

## Findings

### NHMRC funding

In the last five years the National Health and Medical Research Council (NHMRC) has awarded 29 project grants (and over \$17.6 million) in support of Australian investigator-initiated musculoskeletal trials. Research that is 'investigator-initiated' means that the idea for the research came from the individual researcher (rather than from organisations like drug companies).

While this may sound like a lot, it actually works out to be: 0.8% of the total number of NHMRC project grants (29 out of 3,631), 0.8% of total NHMRC project grant funding in monetary terms (\$17.6 million out of more than \$2 billion), and 5% of NHMRC funded clinical trials in monetary terms (\$17.6 million out of \$354 million).

### Registered trials

In 2011-2012 the Australian and New Zealand Clinical Trials Registry (ANZTR) and/or the World Health Organisation (WHO) Registry Platform had 191 randomised controlled trials (RCTs) registered as recruiting participants in Australia.

Randomised controlled trials are studies that involve a number of similar people randomly assigned to two (or more) groups to test a specific treatment. One group receives the experimental treatment and the other receives an alternative treatment, a placebo or no treatment at all. This allows researchers see how effective the experimental treatment really is.

Out of these RCTs, 58 of 59 trials in the WHO registry were sponsored by pharmaceutical companies or industry and 16 were trials investigating drug interventions for rheumatoid arthritis.

Of the 132 trials registered in the ANZCTR, 5 trials did not appear to have been initiated by investigators in Australia, and the remaining 127 trials, as well as one registered within a WHO registry, appeared to be Australian investigator-initiated (with an Australian researcher as the contact person). The most common types of interventions or treatments studied were physical therapy and drug interventions.

### Published trials

Researchers found 565 papers reporting musculoskeletal RCTs published in 2011 and 2012 in the top 37 general medical and musculoskeletal specific journals. 10.1% included Australian participants and 5.3% were initiated in Australia.

Of these almost half (46.7%) were for osteoarthritis, and 46.7% were for regional conditions. Many involved physical therapy interventions (46.7%), as well as drug and surgery interventions (40% combined).

There were no NHMRC-funded musculoskeletal trials in the last 5 years, nor were there any registered or published musculoskeletal trials in the last 2 years investigating ways to improve uptake of research findings or guidelines into clinical practice.

### What does this mean?

In the past 5 years, a substantial number of Australian musculoskeletal trials have been taking place. However when you balance this against the burden of musculoskeletal conditions in Australia - 6.1 million Australians, \$55 billion - funding from the National Health and Medical Research Council appears to be quite low.

Of the trials published in the top medical and musculoskeletal specific journals, there appears to be good Australian representation. However trials investigating ways to improve the uptake of research findings or clinical guidelines into practice are lacking. The researchers concluded that 'priority setting among a wide range of stakeholders to identify the most important questions is urgently needed. This is likely to include a focus on improving research translation'<sup>ii</sup>.

Musculoskeletal Australia has an important role to play in this context. We are currently developing a Research Strategy for the organisation to work with the musculoskeletal health sector to address these issues.

## Find out more

- Read the article in the Medical Journal of Australia- [www.mja.com.au/journal/2014/200/2/scope-funding-and-publication-musculoskeletal-clinical-trials-performed-australia](http://www.mja.com.au/journal/2014/200/2/scope-funding-and-publication-musculoskeletal-clinical-trials-performed-australia)

## How we can help

Call our MSK Help Line and speak to our nurses. Phone 1800 263 265 or email [helpline@msk.org.au](mailto:helpline@msk.org.au).

We can help you find out more about:

- arthritis and musculoskeletal conditions
- ways to live well with these conditions
- managing your pain
- upcoming webinars, seminars and other events.

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<sup>i</sup> Arthritis and Osteoporosis Victoria (2013). *A problem worth solving*. Elsternwick: Arthritis and Osteoporosis Victoria.

<sup>ii</sup> Bourne A, Whittle S, Richards BL, Maher CG and Buchbinder R (2013). The scope, funding and publication of musculoskeletal clinical trials performed in Australia. Elsternwick: Arthritis and Osteoporosis Victoria.