



EMBARGO 6 AM AEST Friday 30 April, 2021

Back pain image screening on rise despite calls to limit use, conference hears

Australian rates of diagnostic imaging for low back pain are increasing despite national guidelines advising that their routine use be limited, according to latest research to be presented today at a key meeting of specialist pain medicine physicians.

Professor Flavia Cicuttini, Head of the Musculoskeletal Unit in the Department of Epidemiology and Preventive Medicine at Monash University and Head, Rheumatology at The Alfred hospital in Melbourne, co-authored a lumbar spine imaging study of 13,458 women aged between 30 and 39 years using data collected for the Australian Longitudinal Study on Women's Health.

The study found that the rate of CT scans increased nearly 25 fold from 1996 to 2015 while MRIs increased 16 fold from 1999 (no MRIs were used before 1999) to 2015. The study authors estimated that if image screening for back pain followed clinical guidelines, \$400 million could have been saved between 2011 and 2015.

Professor Cicuttini will tell the Australian and New Zealand College of Anaesthetists' (ANZCA) Faculty of Pain Medicine (FPM) symposium in Melbourne on Friday 30 April that low back pain has a significant economic cost and is the most common condition keeping older Australians (aged between 45 and 64) out of the workforce. With arthritis, low back pain accounts for 40 per cent of forced retirements.

She said while Australia spends \$4.8 billion a year on the management of low back pain there is "significant low value care with high rates of imaging use, presentations to emergency departments and inpatient care for non-serious low back pain."

"This is at odds with the current recommendations for the management of low back pain which advise that routine use of imaging be avoided except to exclude significant alternative 'red flag' diagnoses such as cancer, fractures and auto-immune diseases and focus on high-quality education, encouragement to return to normal activity and physical exercise," she explained.

The research, published in the peer-reviewed journal *PLoS One*, is a revealing snapshot into the cost and use of radiography and MRI and CT scans from 1996 to 2015. It found there was a significant increase in expensive, advanced routine diagnostic imaging for lower back pain despite evidence based clinical guidelines and campaigns advising that such screening should be limited to "red flag" diagnoses.

The study found that 38.9 per cent of women underwent some form of lumbar spine imaging over the 20 years. While radiography rates increased from 1996 to 2011 but then decreased, CT and MRI image scanning continued to increase from 1996 to 2015. In women with self-diagnosed back pain, depression and poorer physical health were associated with increased rates of imaging referrals.

Professor Cicuttini said the study showed that those who were more depressed and described poorer general health were more likely to have diagnostic imaging for low back pain.

“What we found was that people who tended to be more depressed and anxious were the ones most likely to have a lot of tests. It may be that doctors feel pressured to do these investigations in these patients, despite the clinical guidelines,” she said.

“For many people who seek health care for their back pain, they have the pain, are distressed and investigations provide a sense of reassurance that they are being taken seriously and the cause of the problem is being sorted out. However, we know that for most people without ‘red flag’ conditions, it is nonspecific low back pain.

“The recommendations are for patient education, continuing to be as active as possible, avoiding unnecessary imaging, simple pain relief and avoiding the use of narcotics. There is evidence that delays in getting onto these management plans gets in the way of people with back pain improving. However, it’s much easier to provide a prescription for pain relief or order an image scan than it is to provide the necessary education and encourage physical activity which risks patients being dissatisfied with this.”

“We know back pain is very common and fluctuates. We’re in no way downplaying its impact, but at the end of the day we all want the best outcomes and the evidence is that this is achieved by understanding the natural history of the patient, meeting consumer expectations, keeping physically active and minimising harm, especially through the use of narcotics. We don’t want to make back pain a normal part of living but we need to learn how to live with it.”

According to Professor Cicuttini back pain is “so common in the community that there is a need for community education so we all understand this condition, what to expect and how to manage it. This community-based approach is important for managing expectations and is likely to result in more effective patient and clinician interactions that support following the current recommendations for management of low back pain.”

Professor Cicuttini said while the study found that depression and poor physical health were associated with more lumbar spine imaging, raising awareness of this in clinicians would “result in significant cost savings if clinical guidelines are followed, with the potential of freeing resources for high value care and health outcomes and improving patient outcomes by avoiding delays in starting treatments we know work.”

“Both patients and clinicians should be targeted for intervention to reduce unnecessary imaging for low back pain, as there is evidence of expectations from patients and clinicians that imaging is necessary for the management of low back pain,” she said.

More than 2000 anaesthetists and specialist pain medicine physicians have registered for the 2021 ANZCA and FPM virtual Annual Scientific Meeting and symposium in Melbourne from 30 April to 4 May.

For more information or to request interviews, please contact ANZCA Media Manager Carolyn Jones on +61 3 8517 5303, +61 408 259 369 or cjones@anzca.edu.au