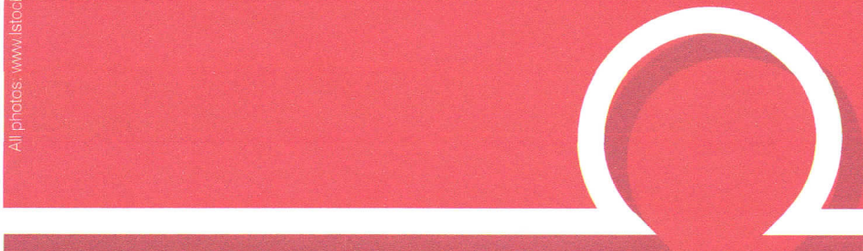
LOW BACK PAIN — THE TIME IS NOW



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Low back pain is a major global problem that is getting worse as the population increases and ages. In March this year, *The Lancet* published a series of three papers on the global impact of low back pain that, respectively, present the challenges and causes of low back pain, the evidence for the effectiveness of treatments, and a call for action. Melissa Mitchell spoke with three Australian authors involved in this worldwide collaboration for change.

Associate Professor Mark Hancock, APAM, is a physiotherapy educator at Macquarie University in Sydney and is joint first author of the first paper in *The Lancet* LBP series: 'What low back pain is and why we need to pay attention'.

The messages arising out of *The Lancet* LBP series for physiotherapists are many, but perhaps the most pressing is to encourage clinicians not to over-treat the condition, says Mark Hancock. So it follows that shifting the focus from passive therapies such as interferential and ultrasound, for which there is little evidence of effectiveness in treating LBP, to physiotherapists providing more active treatments and encouraging self-management is a good thing, Mark says.

In the first paper, LBP is identified as the number one cause of disability worldwide, and it clearly highlights that the global burden of LBP is projected to increase even further in coming decades. Already, the number of years lived with disability caused by LBP have increased by 54 per cent between 1990 and 2015. This, Mark says, presents a golden opportunity for physiotherapists, as primary care practitioners, to play a leading role in educating the public about LBP and its treatment. Physiotherapists should discourage low-value care such as invasive and potentially harmful imaging, surgery and opioid use while promoting the benefits of exercise and self-management of the condition.

'There is no doubt that some physiotherapists over-treat back pain. We have strong evidence that many people with back pain recover very well with very little care,' Mark says. 'But that doesn't mean they don't need any care. One of the things that I'm really passionate about is that we understand that providing high-quality care for two or three sessions, including initial screening and making sure that there is nothing serious going on, providing reassurance and good advice on how to manage back pain is really important. One of the biggest challenges for our profession is to start taking on that role, in the way you might think of a GP managing simple back pain.

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'Virtually all LBP guidelines recommend advice and minimal care in the first couple of weeks for people with simple, acute back pain. And physios should be great at that job—but sometimes we feel we've got to do too much,' he says. 'I really think there are a lot of opportunities for physios here. But we need to look at the challenges and consider ways to make sure we continue to practice according to the evidence. There's a real role for us to be that first primary care practitioner for people with musculoskeletal conditions, including back pain, but if we want to do that role well we have to realise that often people don't need a lot of care. So I think that's one of the key takeaway messages,' he says.

'As a person who teaches physiotherapy students, I think some of the change to this way of thinking starts with education—it is harder to change practice in people who are used to doing things in a particular way, but I also think it's about valuing that type of care. I know for myself, in my early years as a clinician, if I didn't put my hands on and do something and instantly change somebody's pain I felt that I hadn't done enough,' Mark says. 'So we need to really value giving people good advice and sending people along a good pathway … I think one of the physiotherapist's most important roles is to help patients avoid those bad treatments. We can play a really important role in helping people stay away from imaging and opioids and surgery by giving people really good advice.'

Mark says that while acknowledging that there are gaps in the evidence around the understanding and treatment of LBP, the current evidence clearly shows that some types of treatments are invasive, potentially harmful and are not supported by the evidence. While these types of treatments are generally not delivered by physiotherapists, many of the recommendations arising from *The Lancet* series support treatments that physiotherapists can, and should, be delivering such as exercise, good advice and self-management approaches. The cause of gaps between the current evidence and clinical practice has also been a focus of the series, Mark says, and points variously to the difficulties for clinicians in staying up with evidence, the tendency for healthcare systems to fund low-quality care through incentivised programs, and having clinicians reject, disagree with, or simply disbelieve the evidence. 'We can be too hard on clinicians; there's just so much new information coming out all the time. I know we're primarily talking about physios here, but particularly for GPs it's really hard because they're trying to stay up with the latest evidence for so many conditions. Which is again why I believe physiotherapists should be the profession that is the first point of call when people have back pain. I think there is a real opportunity for our profession,' Mark says.

Emphasis should also be placed on the role physiotherapists have in educating the general population about LBP treatment to contribute to a societal change in attitude and understanding. By helping the general community to understand back pain—and pain in general—physiotherapists are agitating for change, Mark says.

'We know a lot of bad care for back pain is actually driven by patients believing that they need certain things that they don't. So for example, one of my PhD students asked 500 people turning up to a GP if they thought they needed imaging, and most of them said they thought they did. We know that part of the reason that GPs image patients, even though they probably shouldn't, is because the patients want it. A lot of this is about educating the community. I think that's often forgotten. If we can help the general community to have a better understanding of back pain, I think that will help a lot.'

Up next: Professor Chris Maher > >

Professor Chris Maher, FACP, is director of Musculoskeletal Health Sydney at the Sydney School of Public Health at The University of Sydney. Chris is a member of *The Lancet* LBP series working group steering committee and co-author of the second paper in the series: 'Prevention and treatment of low back pain: evidence, challenges and promising directions'.

Getting the message out about the right treatments for LBP has been a long time coming. It's taken time to get the right people together from across the globe, it has taken time for the evidence to mount and it has taken time to collate that evidence and extract key messages from it. But now that the work has been done and presented in the *The Lancet* LBP series, it's a golden opportunity for physiotherapists, says Chris Maher. And the best treatment approaches for LBP can be provided by physiotherapists, if they choose to.

'We have the opportunity to be a major player in delivering best practice care for back pain, and I hope we don't stuff up that opportunity by not changing. Something like this [LBP series] hasn't happened before for physiotherapy in this area. I think it has been a long time coming,' Chris says. 'One thing that creates this opportunity for the profession is that around the world, everybody who has read *The Lancet* has taken it on board and has been pretty positive about it—we haven't got anybody pushing back saying "the messages are wrong".'

In the paper, Chris and co-authors summarise the 'evidence for interventions for the prevention and treatment of low back pain and the recommendations from best practice guidelines', and 'highlight examples of effective, promising, or emerging solutions from around the world and make recommendations to strengthen the evidence base for them.' The evidence suggests LBP should be managed in primary care, with the first line of treatment being advice and education to keep functional and active—treatment which aligns precisely with evidence-based effective physiotherapy interventions.

The series draws on published literature from across the globe, such as the UK National Institute for Health Care and Excellence (2016). 'Consistent recommendations for early management are that individuals should be provided with advice and education about the nature of low back pain and radicular pain; reassurance that they do not have a serious disease and that symptoms will improve over time; and encouragement to avoid bed rest, stay active and continue with usual activities.' This approach is a recurrent theme throughout the series—one that Chris says can enable physiotherapists and health professionals to turn a problem into a solution.

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While the paper extensively covers treatments and therapies not recommended, or of limited use—imaging, opioids, epidural glucocorticoid injection, and surgeries such as discectomy, laminectomy and spinal fusion among others—it equally focuses on the positives. As primary care clinicians, the first-line and second-line interventions—not limited to advice to remain active, education, exercise therapy and spinal manipulation—play right into the hands of physiotherapists.

'I think a key takeaway from this is we have a tremendous opportunity now that we understand that things like drugs and surgery have been overused. But at the same time, we also do point to some areas where physiotherapy needs to change,' Chris says. 'So there are some things that people should feel really good about, and there is also some challenges that we need to face as a profession. But I think we're big enough and strong enough to face those challenges.'

One of those challenges is bridging the gap between evidence and practice. There are many reasons the gap exists across the globe, Chris says, despite recommendations in multiple clinical guidelines advising against traditional passive treatments for LBP.

'I think a major reason is that in medicine, back pain is a very small part of the curriculum, a small part of the training. So most medical doctors would leave their degree ill-equipped to manage low back pain. And then when you throw in all the vested interests—marketing expensive drugs, and expensive procedures—it's a fertile ground for the wrong care to happen. So that's why it's happening,' he says.

The challenge, then, is to build a better understanding of the guidelines and how to implement them in a physiotherapy clinical setting through more education, he says. 'One of the things I was talking about with [Professor of Musculoskeletal Physiotherapy at Perth's Curtin University] Peter O'Sullivan is that there might be a gap between what is written in the guidelines and then actually training physiotherapists in undertaking some of these treatments. Peter is thinking that there's a piece of work that needs to be done collaboratively, with the APA, in terms of developing continuing education opportunities to help physiotherapists provide those treatments, which are known to be effective,' Chris says.

'One reason people stick with stuff that doesn't work particularly well is because they were trained to do it, and they feel comfortable doing it. Peter is of the view that we should try and reach out and help those people to transition so that there is a better process of care.'

Education on a global scale is also needed, Chris says, and is something contributors to *The Lancet* LBP series are now tasked with doing. To help meet that aim, Chris and the series' steering committee will travel to Los Angeles in the US next month to address the North American Spine Society annual meeting and exhibition—at their invitation.

'The North American Spine Society is a group of mainly orthopaedic surgeons in the US and that is the group that does a lot of the stuff which we say in this series that you shouldn't do. That's ground zero for surgery, nerve-cutting procedures, injections, all that sort of stuff. For them to come to us and say "talk to us about the series of papers" is really a big step,' he says.

Chris says work is underway to ensure the series is not merely consigned to the history pages: the 'Low Back Pain: Policy and Action' brief has since been drafted to take the key messages from the series and use them to agitate for change in global political and heathcare policy-making levels. The brief details a multipronged strategy to move the series recommendations off the page and onto the health agenda in a profound way, identifying key areas of intervention including changing clinical systems and pathways for LBP, changing compensation and disability policies, integrating health and occupational interventions, and investing in public health strategies and campaigns to change beliefs and behaviours.

This big picture approach will be coupled with a second series in *The Lancet*, equating to a status report to check in on the progress of the global action being undertaken in the field of LBP. 'We've got to try and measure whether we're making progress. Our job in five years' time is to put together a report card to show that we've changed back health, in terms of the disease burden, and also that the care that's being given to people with back pain is the right care.'

Up next: Professor Rachelle Buchbinder >>

Professor Rachelle Buchbinder was the chair of *The Lancet* low back pain (LBP) series working group steering committee and was lead author of the final paper in the three-paper series, the viewpoint piece: 'Low back pain: a call for action'. Rachelle led the team that developed and pitched the original proposal for the series to *The Lancet*, and she coordinated the development and revision of the three papers.

After working with the steering committee to draft a proposal for a 10-part series and sending it off to Richard Horton, editor of *The Lancet*, Rachelle Buchbinder expected she would not hear back for some time. She thought she could sit back and focus on other projects. To her surprise the response was almost immediate. 'I woke a couple of days later and there was an email from Richard saying "your case is certainly convincing and we would be delighted, indeed honoured, to work with you and your team". That was the 1 September 2015 and the series was finally published online on 22 March 2018 and in print on 9 June 2018.'

The huge undertaking began in earnest when the seven-person steering committee, comprising members from Australia, Denmark, the US, the UK and the Netherlands, met in late 2015 in Amsterdam to outline the scope of the series and identify relevant authors. The authorship needed to be an eclectic mix of experts from across the globe to represent different perspectives and disciplines. 'We didn't just want people who thought like us,' Rachelle says.

One of the main drivers for the series was the concern that overmedicalisation was increasing the disability from LBP in high-income countries. Rachelle says the committee and *The Lancet* agreed that the project would need to have a focus on low- and middle-income countries to try to reduce the likelihood that they would make these same mistakes.

'The final series included a total of 31 authors from 12 countries including Australia, Denmark, the US, the UK, the Netheralnds, Brazil, South Africa, Germany, Sweden, Switzerland, Finland and Canada,' she says. 'The buy-in was incredible—only one person we approached declined involvement for health reasons. Disciplines represented included general practice, physiotherapy, chiropractic, surgery, rheumatology, pain medicine, rehabilitation and epidemiology.'

'There really needs to be a new paradigm shift. While the biopsychosocial model has been great up to a point, we need to emphasise positive health and move further towards treating back pain much more like a common, everyday occurrence of life.'

The initial proposal of 10 papers was scaled back to five (four papers and a 'call to action' viewpoint piece), and a meeting of authors was organised preceding the 2016 International Back and Neck Pain Research Forum in Buxton, UK. Nearly all attended; those unable to make it in person called in to the meeting. There, drafts of each paper were discussed, and suggestions for revisions made. The papers were finalised shortly after the meeting and submitted to *The Lancet*. It was here the project hit a slight bump in the road—because they'd chosen such an extensive list of contributing authors, sourcing high-calibre, independent reviewers of the papers proved difficult.

'We got the first round of reviews and we were asked to combine papers one and two, and papers three and four, which took a lot of extra work. That is why they are quite long and why there are so many appendices, supplements, and tables,' Rachelle says. 'The 31 authors expressed lots of different opinions and there were lots of drafts. I spent a lot of time emailing, organising steering group teleconferences and liaising with *The Lancet*.'

The large-scale project had clear goals in mind—to lay out the immensity of the problem and causes, and to highlight potential solutions. In the viewpoint piece, Rachelle and her co-authors point out that the global challenge is to 'prevent the use of practices that are harmful or wasteful while ensuring equitable access to effective and affordable healthcare for those who need it'. Many of the high-quality practices the series identifies and espouse relate directly to physiotherapists in their role as primary care clinicians.

'We want practitioners to manage patients in an evidence-based way, and the last paper [in the LBP series] features panels outlining what clinicians, patients, consumers and policy-makers should know. We hope this will focus discussion on what needs to change. There really needs to be a new paradigm shift. While the biopsychosocial model has been great up to a point, we need to emphasise positive health and move further towards treating back pain much more like a common, everyday occurrence of life,' she says. One of the key takeaways from the series for physiotherapists, allied health professionals and the broader community is that LBP is a global problem that is getting worse, Rachelle says. 'We need to start addressing the problem now. We need much more thinking about how to address the burden at the highest levels. The World Health Organization has been very focused on reducing communicable diseases, and now they're starting to look at non-communicable diseases. However, musculoskeletal conditions, in general, are not really on their agenda in any profound way, so I think that's where we want to try and push things.'

The viewpoint paper sets out political, public health and healthcare challenges which identify cultural, systemic and practice changes required to meet the difficulties associated with prevention of disabling LBP. It also identifies important roles health professionals can play, including adopting a positive health approach through the use of positive language to change widespread and inaccurate beliefs about LBP.

'Improved training and support of primary care doctors and other professionals engaged in activity and lifestyle facilitation, such as physiotherapists, chiropractors, nurses, and community workers, could minimise the use of unnecessary medical care. Crucial to changing behaviour and improving delivery of effective care are system changes. These need to integrate and support health professionals from diverse disciplines and care settings to provide patients with consistent messages about mechanisms, causes, prognosis and natural history of LBP, as well as the benefits of physical activity and exercise,' she says in the paper.

'The success of a positive health approach will depend on whether relevant stakeholders share the same mission, vison, and objectives and on the success of strategies for knowledge transfer and exchange.'

Up next: Some brief commentary> >

Roxanne Azoory, FACP
APA Musculoskeletal group national chair

This series is a compelling call to action on a topic we've known about for years. Physiotherapists are perfectly placed to lead this change. Our experts need to define the outcomes that reflect recovery in low back pain, and the tools to measure these outcomes. Governments and insurers can then start building funding models to support these outcomes with qualitative and quantitative markers.

Physiotherapy's current funding model may be set up for over-servicing, as we charge by number of visits and services. We need financial models with incentives that support best practice and disincentives for services without evidence.

The value of sound clinical reasoning continues to exceed the value of costly imaging in the low back pain literature. It's important we each claim responsibility for our treatment choices. Clearly linking our clinical conclusions to specific findings from history-taking, physical exams and the literature to patients and professionals emphasises sound reasoning and helps poke holes in faulty logic that supports ineffective practices.

Andrew Dalwood, FACP
Clinician with extensive experience in chronic low back and chronic pain management

It is great to see the breadth of worldwide expertise highlighting the impacts globally of low back pain on levels of disability, employment and socially. The articles in *The Lancet,* while giving the issue great exposure, highlight the ongoing challenges in over-use in medication and radiology, and show the importance of adoption of guidelines in management of low back pain. Importantly, the series presents the evidence to inform appropriate clinical decision-making, while highlighting the ineffective options still widely promoted and used.

The series promotes the concept of a 'positive health approach' adopted by all healthcare professionals, changing the focus from unhelpful beliefs, illness behaviour, to encouraging greater care with language used and reinforcing the benefits of physical activity and exercise, all of which has been highlighted in physiotherapy literature extensively over the past decade.

Peter O'Sullivan, FACP
Professor of Musculoskeletal Physiotherapy at Curtin University, Perth

The Lancet series emphasised the multidimensional complexity of low back pain and the huge gap between evidence and practice for the management of low back pain. Sadly, I see the fall out of this failure in the healthcare system daily—where patients with low back pain are rapidly offered negative messages, MRI scans, injections, opioids and surgery (low-value care), often leading them down a pathway of pain, distress and disability.

As a profession we need to engage with society to educate them about low back pain. As clinicians, we must embrace high-value care for people with low back pain, and when our patients are not responsive, to get a second opinion from a specialist physiotherapist to prevent their escalation into low-value care. We also need to work with our medical and psychologist colleagues when multidisciplinary care is needed. In this way, together we can deliver high-value care to people with low back pain to reduce the disability and cost burden in our society.

Dianne Wilson, APAM
APA Pain group national chair

This important series has brought together an international group of authors from different backgrounds. They have reported on high-quality studies that have incorporated systematic reviews, large population cohorts and the Global Burden of Disease study. *The Lancet,* a prestigious journal, has a very wide distribution to the people we really want it to reach in the medical profession so the gap between evidence and practice can be addressed.
It [the series] reinforces that pain is a complex condition and the fact that we now know there are multiple contributions to back pain and the associated disability from it. One of the important messages for physios is to recognise the evidence that it's generally not possible to accurately identify a specific nociceptive source, thus leading us more to the biopsychosocial model to understand and manage the complexity of low back pain, ideally in multidisciplinary settings.

The low back pain series can be found at: thelancet.com/series/low-back-pain.