National Osteoarthritis Strategy brief report

Living well with osteoarthritis

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This article is part two in a three-part series on the National Osteoarthritis Strategy.

Background
Recommended first-line management of lower limb osteoarthritis (OA) includes support for self-management, exercise and weight loss. However, many Australians with OA do not receive these. A National Osteoarthritis Strategy (the Strategy) was developed to outline a national plan to achieve optimal health outcomes for people at risk of, or with, OA.

Objective
The aim of this article is to identify priorities for action for Australians living with OA.

Discussion
The Strategy was developed in consultation with a leadership group, thematic working groups, an implementation advisory committee, multisectoral stakeholders and the public. Two priorities were identified by the 'living well with OA' working group: 1) support primary care practitioners in the delivery of high-value care to Australians with OA, and 2) enhance the uptake of high-value care by Australians with OA. Evidence-informed strategies and implementation plans were developed through consultation to address these priorities.

OSTEOARTHRITIS (OA) is the most common chronic joint disease globally: one in five Australians over the age of 45 years has OA.[1] The National Osteoarthritis Strategy (the Strategy) aims to outline Australia's national response to OA, covering three areas: 'prevention', 'living well with OA' and 'advanced care'. Development of the Strategy is detailed in part one of the Strategy series.[2] This article, part two, focuses on 'living well with OA'.

The 2018 Royal Australian College of General Practitioners (RACGP) guideline for the management of knee and hip OA recommends self-management, exercise and weight control (lifestyle interventions) for first-line care.[3] Unfortunately, many Australians with OA do not receive 'high-value care', defined as treatment that is supported by evidence of benefit to patients, associated with a higher probability of benefit than harm, and costs that provide proportionally greater benefits than other treatments.[4]

Identified evidence–practice gaps

Underuse of lifestyle interventions and overuse of medications and imaging

Although general practitioners (GPs) describe favourable attitudes towards clinical practice guidelines, their familiarity with, and application of, OA management guidelines reveals an important implementation gap.[5] The CareTrack study reported a median of 43% (95% confidence interval: 35.8, 50.5) of primary care–based healthcare encounters provided appropriate OA care.[6] The Bettering the Evaluation and Care of Health (BEACH) study reported that only 17% of patients who consulted their GP for hip/knee OA were referred for lifestyle interventions.[7]

Previous research into barriers to the use of lifestyle interventions found that primary care practitioners (GPs, nurses, pharmacists, physiotherapists) feel underprepared to deliver these.[8] Previous studies have identified a lack of confidence and knowledge of primary care practitioners to effectively deliver lifestyle interventions.[9–12] Some practitioners continue to prescribe pharmacological agents[7,13] with small therapeutic effects (eg paracetamol[7,14]) and/or with unsatisfactory risks of side effects (eg opioids, nonsteroidal anti-inflammatory medication[7,13,15] and corticosteroid injections[16]). Also, despite recommendations for a limited role in the diagnosis of OA, there remains an overuse of unnecessary imaging.[7] These evidence–practice gaps should be addressed by supporting practitioners with training and resources to enhance their knowledge, skills and confidence in the provision of high-value OA care.[9–12] The RACGP offers continuing professional development courses on OA management for GPs and has published several OA entries in the Handbook of Non-Drug Interventions (HANDI) project.[17]

Important system- and service-level barriers to high-value OA care include inadequate consultation times; limited allied health networks for onward

referral, particularly in regional areas; and inflexible funding models that inadequately support community-based care.[9] The Medicare Benefits Schedule (MBS) provides a maximum of five face-to-face consultations per person with allied health per year, with no provision for addressing care disparities attributable to geography or case complexity. Improved access to effective lifestyle interventions would substantially improve outcomes.

OA guidelines recommend lifestyle interventions as a first-line treatment for OA.[3] MBS Chronic Disease Management items and private health insurance should be accessed where appropriate. Hospital-based OA management programs available in some states, such as the Osteoarthritis Chronic Care Program[18] in NSW and the Osteoarthritis Hip and Knee Service[19] in Victoria, and the GLA:D Australia program is available through selected private physiotherapy clinics and some hospitals.[20]

Inadequate, inequitable uptake of high-value osteoarthritis care

Some Australians are dissatisfied with the care they receive for their arthritis, reporting poor access to health practitioners and information about possible treatments.[21,22] These issues are amplified in rural/remote areas[23] and among Aboriginal and Torres Strait Islander peoples.[24,25] A potential strategy to address poor access to health services is the provision of remotely delivered healthcare. Although patients and practitioners are willing to embrace remotely delivered models for managing OA[26–29] and there is evidence that telehealth is effective for managing musculoskeletal conditions,[30,31] the opportunities for subsidised multidisciplinary telehealth services are limited. Establishing new, outcomes-based funding models involving Primary Health Networks in partnerships with private health insurers, local hospital networks and private providers for delivery of high-value face-to-face and digitally enabled OA care is vital to improving access. For example, Healthy Weight for Life is an existing remotely-delivered OA management program funded by some health insurers.[32]

Where high-value care is accessible, there is often a lack of uptake of lifestyle interventions by people with OA.[33] Common misconceptions of people with OA include: OA is caused by 'wear and tear', their affected joint is 'bone on bone' and will inevitably deteriorate, activity may cause further joint 'damage' and lifestyle interventions have limited effectiveness.[34] It is important for primary care practitioners to address misconceptions of patients as part of the overarching strategy to improve the uptake of high-value care by Australians with OA.

Priorities and strategic responses

The evidence–practice gaps identified in the literature informed the determination of two national priorities for the 'living well with OA' working group. Actionable strategic responses to tackle these priorities are proposed (Figures 1 and 2). The Consolidated Framework for Implementation Research (CFIR)[35] was adapted to generate these figures. The full National Osteoarthritis Strategy provides detailed implementation plans for each strategy (https://ibjr.sydney.edu.au/wp-content/uploads/2019/05/National-Osteoarthritis-Strategy.pdf). By following the relevant recommendations proposed in the Strategy, healthcare providers can ensure the provision of appropriate care for people with OA.

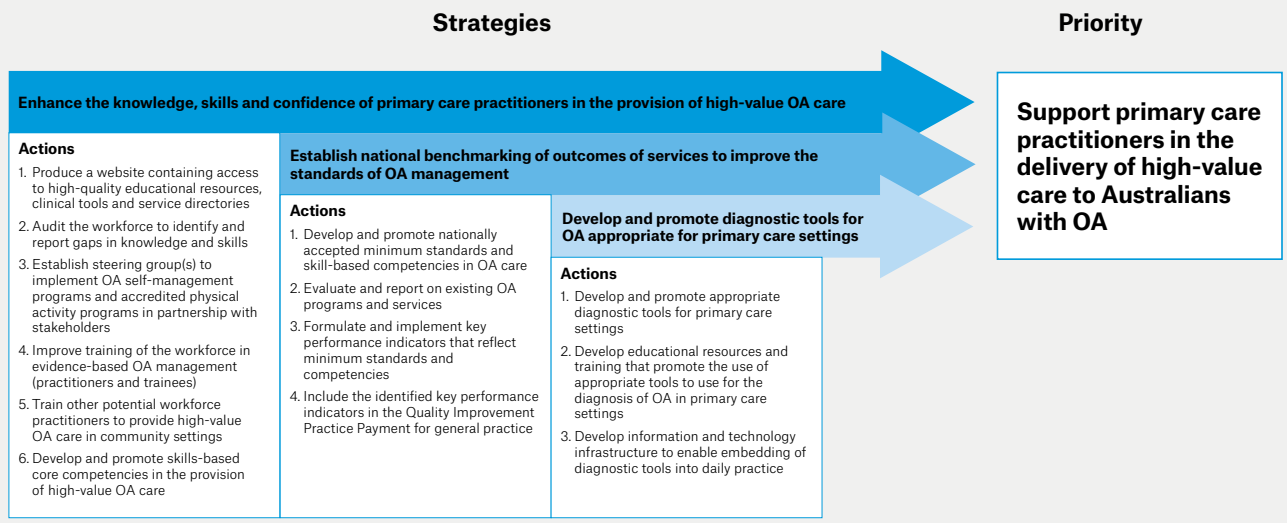

Figure 1. Strategic responses proposed to address priority 1

OA, osteoarthritis

Figure adapted from Wolk et al[36] and based on the Consolidated Framework for Implementation Research[37]

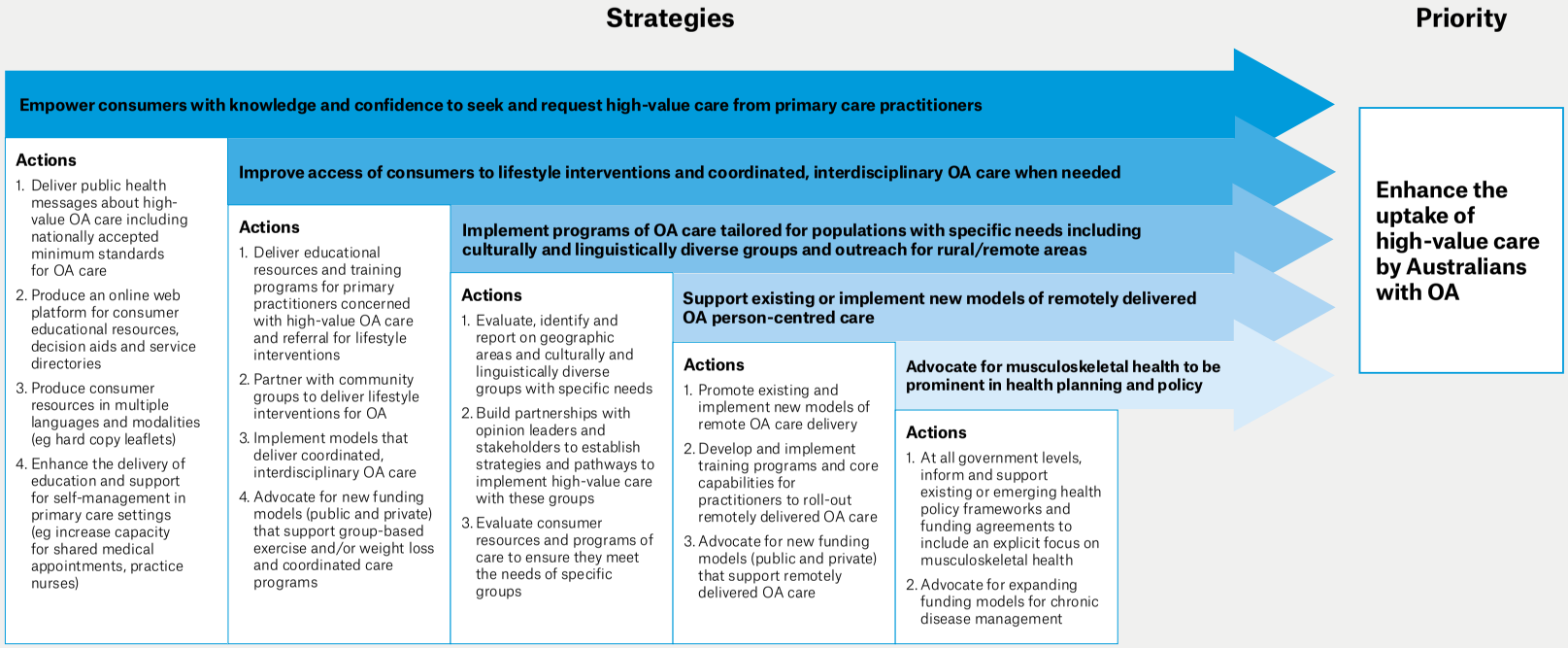

Figure 2. Strategic responses proposed to address priority 2

OA, osteoarthritis

Figure adapted from Wolk et al[36] and based on the Consolidated Framework for Implementation Research[37]

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References

1. Australian Institute of Health and Welfare. Osteoarthritis. Canberra: AIHW, 2018. Available at www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/osteoarthritis/contents/impact-of-osteoarthritis [Accessed 29 January 2020].
2. de Melo LRS, Hunter D, Fortington L, et al. National Osteoarthritis Strategy brief report: Prevention of osteoarthritis. Aust J Gen Pract 2020;49(5):273–75.
3. The Royal Australian College of General Practitioners. Guideline for the management of knee and hip osteoarthritis. 2nd edn. East Melbourne, Vic: RACGP, 2018.
4. Elshaug AG, Rosenthal MB, Lavis JN, et al. Levers for addressing medical underuse and overuse: Achieving high-value health care. Lancet 2017;390(10090):191–202. doi: 10.1016/S0140-6736(16)32586-7.
5. Basedow M, Runciman WB, Lipworth W, Esterman A. Australian general practitioner attitudes to clinical practice guidelines and some implications for translating osteoarthritis care into practice. Aust J Prim Health 2016;22(5):403–08. doi: 10.1071/PY15079.
6. Runciman WB, Hunt TD, Hannaford NA, et al. CareTrack: Assessing the appropriateness of health care delivery in Australia. Med J Aust 2012;197(2):100–05. doi: 10.5694/mja12.10510.
7. Brand CA, Harrison C, Tropea J, Hinman RS, Britt H, Bennell K. Management of osteoarthritis in general practice in Australia. Arthritis Care Res (Hoboken) 2014;66(4):551–58. doi: 10.1002/acr.22197.
8. Egerton T, Diamond LE, Buchbinder R, Bennell KL, Slade SC. A systematic review and evidence synthesis of qualitative studies to identify primary care clinicians' barriers and enablers to the management of osteoarthritis. Osteoarthritis Cartilage 2017;25(5):625–38. doi: 10.1016/j.joca.2016.12.002.
9. Briggs AM, Houlding E, Hinman RS, et al. Health professionals and students encounter multi-level barriers to implementing high-value osteoarthritis care: A multi-national study. Osteoarthritis Cartilage 2019;27(5):788–804. doi: 10.1016/j.joca.2018.12.024.
10. Briggs AM, Hinman RS, Darlow B, et al. Confidence and attitudes toward osteoarthritis care among the current and emerging health workforce: A multinational interprofessional study. ACR Open Rheumatol 2019;1(4):219–35. doi: 10.1002/acr2.1032.
11. Allison K, Setchell J, Egerton T, Delany C, Bennell KL. In theory, yes; in practice, uncertain: A qualitative study exploring physical therapists' attitudes toward their roles in weight management for people with knee osteoarthritis. Phys Ther 2019;99(5):601–11. doi: 10.1093/ptj/pzz011.
12. Alexanders J, Anderson A, Henderson S. Musculoskeletal physiotherapists' use of psychological interventions: A systematic review of therapists' perceptions and practice. Physiotherapy 2015;101(2):95–102. doi: 10.1016/j.physio.2014.03.008.
13. Basedow M, Williams H, Shanahan EM, Runciman WB, Esterman A. Australian GP management of osteoarthritis following the release of the RACGP guideline for the non-surgical management of hip and knee osteoarthritis. BMC Res Notes 2015;8:536. doi: 10.1186/s13104-015-1531-z.
14. Machado GC, Maher CG, Ferreira PH, et al. Efficacy and safety of paracetamol for spinal pain and osteoarthritis: Systematic review and meta-analysis of randomised placebo controlled trials. BMJ 2015;350:h1225. doi: 10.1136/bmj.h1225.
15. Henderson JV, Harrison CM, Britt HC, Bayram CF, Miller GC. Prevalence, causes, severity, impact, and management of chronic pain in Australian general practice patients. Pain Med 2013;14(9):1346–61. doi: 10.1111/pme.12195.
16. McAlindon TE, LaValley MP, Harvey WF, et al. Effect of intra-articular triamcinolone vs saline on knee cartilage volume and pain in patients with knee osteoarthritis: A randomized clinical trial. JAMA 2017;317(19):1967–75. doi: 10.1001/jama.2017.5283.
17. The Royal Australian College of General Practitioners. The handbook of non-drug interventions (HANDI). East Melbourne, Vic: RACGP, 2020. Available at www.racgp.org.au/clinical-resources/clinical-guidelines/handi [Accessed 29 January 2020].
18. Eyles JP, Lucas BR, Patterson JA, et al. Does clinical presentation predict response to a nonsurgical chronic disease management program for endstage hip and knee osteoarthritis? J Rheumatol 2014;41(11):2223–31. doi: 10.3899/jrheum.131475.
19. Brand C, Hunter D, Hinman R, March L, Osborne R, Bennell K. Improving care for people with osteoarthritis of the hip and knee: How has national policy for osteoarthritis been translated into service models in Australia? Int J Rheum Dis 2011;14(2):181–90. doi: 10.1111/j.1756-185X.2011.01613.x.
20. GLA:D Australia. Welcome to GLA:D Australia. Melbourne: GLA:D Australia, 2017. Available at https://gladaustralia.com.au [Accessed 29 January 2020].
21. Arthritis Australia. The ignored majority: The voice of arthritis 2011. Glebe, NSW: Arthritis Australia, 2011.
22. Ackerman IN, Livingston JA, Osborne RH. Personal perspectives on enablers and barriers to accessing care for hip and knee osteoarthritis. Phys Ther 2016;96(1):26–36. doi: 10.2522/ptj.20140357.

23. Briggs AM, Slater H, Bunzli S, et al. Consumers' experiences of back pain in rural Western Australia: Access to information and services, and self-management behaviours. BMC Health Serv Res 2012;12:357. doi: 10.1186/1472-6963-12-357.
24. Dixon T, Urquhart DM, Berry P, et al. Variation in rates of hip and knee joint replacement in Australia based on socio-economic status, geographical locality, birthplace and indigenous status. ANZ J Surg 2011;81(1–2):26–31. doi: 10.1111/j.1445-2197.2010.05485.x.
25. The Australian Institute of Health and Welfare. Arthritis and osteoporosis in Australia 2008. Arthritis series no. 8. Cat. no. PHE 106. Canberra: AIHW, 2008.
26. Lawford BJ, Bennell KL, Hinman RS. Consumer perceptions of and willingness to use remotely delivered service models for exercise management of knee and hip osteoarthritis: A cross-sectional survey. Arthritis Care Res (Hoboken) 2017;69(5):667–76. doi: 10.1002/acr.23122.
27. Lawford BJ, Bennell KL, Kasza J, Hinman RS. Physical therapists' perceptions of telephone- and internet video-mediated service models for exercise management of people with osteoarthritis. Arthritis Care Res (Hoboken) 2018;70(3):398–408. doi: 10.1002/acr.23260.
28. Lawford BJ, Delany C, Bennell KL, Hinman RS. 'I was really sceptical … But it worked really well': A qualitative study of patient perceptions of telephone-delivered exercise therapy by physiotherapists for people with knee osteoarthritis. Osteoarthritis Cartilage 2018;26(6):741–50. doi: 10.1016/j.joca.2018.02.909.
29. Lawford BJ, Delany C, Bennell KL, Hinman RS. 'I was really pleasantly surprised': First-hand experience with telephone-delivered exercise therapy shifts physiotherapists' perceptions of such a service for knee osteoarthritis. A qualitative study. Arthritis Care Res (Hoboken) 2018;71(4). doi: 10.1002/acr.23618.
30. Cottrell MA, Galea OA, O'Leary SP, Hill AJ, Russell TG. Real-time telerehabilitation for the treatment of musculoskeletal conditions is effective and comparable to standard practice: A systematic review and meta-analysis. Clin Rehabil 2017;31(5):625–38. doi: 10.1177/0269215516645148.
31. O'Brien KM, Hodder RK, Wiggers J, et al. Effectiveness of telephone-based interventions for managing osteoarthritis and spinal pain: A systematic review and meta-analysis. PeerJ 2018;6:e5846. doi: 10.7717/peerj.5846.
32. McGill B, O'Hara BJ, Grunseit AC, Bauman A, Lawler L, Phongsavan P. Healthy weight for life programme: Evaluating the practice and effectiveness of a weight loss maintenance programme in the private health insurance setting. SAGE Open Med 2019;7:2050312119873814. doi: 10.1177/2050312119873814.
33. Hinman RS, Nicolson PJ, Dobson FL, Bennell KL. Use of nondrug, nonoperative interventions by community-dwelling people with hip and knee osteoarthritis. Arthrit Care Res 2015;67(2):305–09. doi: 10.1002/acr.22395.
34. Bunzli S, O'Brien P, Ayton D, et al. Misconceptions and the acceptance of evidence-based nonsurgical interventions for knee osteoarthritis. A qualitative study. Clin Orthop Relat Res 2019;477(9):1975–83. doi: 10.1097/CORR.0000000000000784.
35. Keith RE, Crosson JC, O'Malley AS, Cromp D, Taylor EF. Using the Consolidated Framework for Implementation Research (CFIR) to produce actionable findings: A rapid-cycle evaluation approach to improving implementation. Implement Sci 2017;12(1):15. doi: 10.1186/s13012-017-0550-7.
36. Wolk CB, Jager-Hyman S, Marcus SC, et al. Developing implementation strategies for firearm safety promotion in paediatric primary care for suicide prevention in two large US health systems: A study protocol for a mixed-methods implementation study. BMJ Open 2017;7(6):e014407. doi: 10.1136/bmjopen-2016-014407.
37. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. Implement Sci 2009;4:50. doi: 10.1186/1748-5908-4-50.