Commission on Excellence and Innovation in Health.

Consultation draft

Improving care for people with low back pain in South Australia: An optimal system of care

Consultation draft

November 2023

LET'S PUT IMAGINATION TO WORK

Government of South Australia

Invitation to consult

Thank you for partnering with us to design an optimal system of care for the management of low back pain in South Australia

Low back pain (LBP) is a common condition that is associated with significant personal and population level impact. Current models of care for LBP inadvertently perpetuate a cycle of pain, disability, and distress within our community. They also direct an inappropriately large portion of the health system burden for LBP to our public hospitals, where data indicate that LBP care is delivered at high cost to the system but provides limited value to our community. Reimagining the way we deliver care for LBP will advantage all South Australians. It will also provide significant benefits to the health system in terms of reducing demand on the acute sector and assist in mitigating the extant front door pressures, including ambulance ramping.

The Commission on Excellence and Innovation in Health (CEIH), together with its eight Statewide Clinical Networks, aims to foster innovation across the health system to achieve excellent health outcomes and experiences for our community, and in turn, improve the performance of our health system. We believe this proposal directly aligns to, and will deliver on, that remit. This consultation document outlines an ambitious blueprint for action which proposes the development of a publicly funded, community-based system to optimise the delivery of care for LBP. As will be demonstrated by the financial modelling, there is scope in the system to support these reforms if health services are willing to reimagine traditional boundaries of care, and re-purpose the large and existing LBP-related expenditure to support delivery of more effective care in the most appropriate clinical setting.

The proposed optimal system of care for LBP has been developed in collaboration with the Low Back Pain Working Group, convened under the auspices of the Chronic Pain Statewide Clinical Network, and informed by broad stakeholder and community input. We sincerely thank all contributors for sharing their knowledge and expertise to inform the development of this document and we now look forward to learning from you.

It is in everyone's interest to bring an optimal system of care for LBP to fruition.

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Terminology

Terminology has been adapted from the Low Back Pain Clinical Care Standard (2022).

Term	How it is used in this document
Low back pain (LBP)	Symptoms of pain located between the lower rib margins and the buttock creases. These symptoms are commonly accompanied by pain in one or both legs, and some people have associated neurological symptoms in the lower limbs. 'Low back pain' is used broadly in this document to describe pain: • That does not have a diagnosed cause and is not considered to be associated with specific or serious pathology, based on either clinical assessment or investigations. This has been described in the literature as 'non-specific', 'not specified', 'undiagnosed', 'mechanical' or 'musculoskeletal' low back pain; **or** • That is associated with specific or serious pathology. Low back pain may be acute or chronic, referring to the duration of symptoms.
Acute low back pain	Low back pain with duration of less than three months.
Chronic low back pain	Low back pain that occurs on most days and persists for longer than clinically expected timelines (usually defined as more than three months).
Specific and/or serious pathology	Recognised pathological causes of low back pain symptoms – for example, vertebral fracture, malignancy, infection or cauda equina syndrome. **Note: The term 'red flags'** is commonly used to refer to history or clinical findings that are believed to increase the likelihood of a serious diagnosis. However, nearly all commonly recommended individual red flags are uninformative and do not substantially change pre-test probabilities of a serious pathology, hence the term 'specific and/or serious pathology' is used in preference to 'red flags'.
Community care	Healthcare that is provided in the community setting.
Tertiary care	Healthcare that is provided in emergency departments, in large public hospitals, and hospital outpatient clinics.
Healthcare services	Healthcare services are delivered in a wide range of settings and vary in size and organisational structure from single healthcare providers to complex organisations. Where 'healthcare services' is used in this document, it refers to those responsible for leading and governing the service. This document applies to all healthcare settings in which low back pain care is provided, especially: • Community / Primary healthcare services.
Allied health	The term allied covers a range of providers including, but not limited to, exercise physiologists, occupational therapists, pharmacists, physiotherapists, psychologists, and social workers.

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Executive summary

Context

Low back pain (LBP) is one of the most common musculoskeletal conditions experienced around the world. It is a leading cause of disability and frequently associated with life altering outcomes such as workplace withdrawal, physical and social isolation, and psychological distress. LBP is responsible for a high level of healthcare expenditure and resource consumption. Much of the disability associated with LBP is avoidable, but accessing appropriate, timely and effective intervention to improve outcomes and prevent progression from the acute to chronic state is a key problem.

Clinical practice guidelines emphasise that LBP should be managed in community healthcare settings where early intervention, education and timely follow-up can be provided, with self-management supported in a holistic model. In the absence of publicly funded community-based services however, many people with LBP rely solely on the acute hospital system for treatment. Indeed, LBP is the primary pain-related reason that people present to a South Australian Emergency Department (ED), and this is associated with disproportionately high rates of hospital admission compared to our national and international peers. South Australian data also suggests that current ED practices for LBP provide low value biomedically focussed care, which predominantly involves the use of high-dose opioids. Few people with LBP receive allied health input via the ED route, despite evidence suggesting its high utility for this condition.

The proposed optimal system of care

The optimal system of care for LBP was developed by a dedicated group of clinicians, consumers, emergency care specialists, industry stakeholders and researchers (refer to Acknowledgements, p.1), working under the auspices of the Chronic Pain Statewide Clinical Network in the Commission on Excellence and Innovation in Health (CEIH). The key objective in articulating this system for LBP is to foster the creation of care models that will improve the health and wellbeing of the South Australian community and decrease the demand pressure on our EDs. The optimal system of care described in this document aims to augment the important primary healthcare services that already exist in our community by filling the critical gap between GP-led primary healthcare and ED treatment for LBP and providing coordination across the system for more effective management of this condition.

The optimal system of care was developed for people aged 16 years and over who require assistance for LBP. It was conceptualised to reflect the importance of individualised care, capturing the variety of entry points and care options that can support the development of personalised pathways. As such, it does not rely on a standardised linear approach to treatment. Importantly, it highlights

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components of care which could optimise the way that LBP is managed across the state; offering particular benefit to rural and regional areas that are disproportionately disadvantaged under the current models of care.

This is an innovative and cost-effective approach to LBP care that incorporates contemporary evidence-based standards of pain medicine and science, and supports consumers to receive timely, evidence-informed care that can circumvent the cycle of disability. Front-loading care in community settings will facilitate provision of rapid clinical assessment, timely intervention (education, coaching, treatment) and monitoring. Including well-trained staffing across a range of disciplines (medical, nursing, allied health) will support a person-centred approach that considers both physical and psychosocial aspects of health, the latter being of critical importance in chronic pain states. Creating a shared state-wide understanding of the assessment and triage of LBP will ensure individuals are consistently directed to the most appropriate care destination, including early referral to tertiary services where indicated.

Implementation

Articulating the optimal system of care is the first step. Implementation will require resource identification and health system reform to create the critical components necessary to provide appropriate care for LBP, improve the health of our community and better support our busy hospital systems. That said, the proposed optimal system of care is strategically flexible by design. Key principles are, that components be publicly funded, community-based and provide timely access to an appropriately skilled multidisciplinary team. This could be delivered across a range of potential settings (e.g., creation of standalone LBP services, co-location of LBP hubs with existing health services or future hospital avoidance centres) and expanded to improve care for a range conditions (e.g., other musculoskeletal disorders, cardiovascular diseases, diabetes). Working through these options with industry stakeholders is a key next step for the Chronic Pain Statewide Clinical Network and these discussions will inform the development of detailed models of care and triage criteria.

Intended outcomes

The optimal system of care is designed to provide a timely holistic approach to care that is centred on wellness. Early access to evidence-informed care for LBP is expected to improve community health and wellbeing, reduce LBP-related disability, reduce acute-chronic LBP transition rates, decrease use of contra-indicated tests and procedures, and reduce medication related harms. Achieving this is also expected to decrease LBP-related hospital presentations and admissions and thus significantly reduce health care expenditure, whilst also freeing up acute sector capacity.

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Introduction and rationale

Low back pain (LBP) is a prevalent[1,2], costly (personal and societal costs)[3-6] and complex condition for which there is no one-size fits all solution. Most acute cases of LBP improve rapidly within the first six weeks of presentation and many achieve minimal pain and disability at one year.[7] However, recurrence is common, with around 24% of people experiencing another episode of LBP within 12-months[8], accounting for much of the burden of this condition.[9] For some people, LBP becomes a chronic condition that recurs episodically, with or without intervening periods of remission.[10] Once LBP is chronic, treatment becomes more complex and achieving a level of recovery is more challenging.[5]

High quality care for LBP requires stepped access to a range of services which span community and acute settings. Research suggests that fewer than 10% of people with LBP require specialist assessment, medical imaging, or complex interventions[11]; the majority can be appropriately managed in the community if they have access to services which follow internationally accepted guidelines.[12,13]

General Practitioners (GP) are typically the first port of call for community-based LBP care, and they provide a critical treatment nexus. However, the complexity of LBP, especially chronic LBP, means that many people require additional input. For those who need more than GP care for their LBP, effective community management relies on access to multidisciplinary input, particularly allied health services. Unfortunately, there are few community-based services in this state which provide this type of care outside of the costly private system or workers compensation scheme. South Australia does have four tertiary pain management services (3 adult, 1 paediatric) which provide multidisciplinary input, but they are only able to see the most complex cases and demand at these clinics typically result in lengthy waits[14] during which patients have been shown to deteriorate.[15] In the absence of viable community care pathways for LBP, many people rely on the hospital system for treatment.[16]

South Australian hospital data: the case for change

Data from the South Australian electronic medical record (EMR) indicates that LBP is the primary pain-related reason that people present to an Emergency Department (ED). At hospitals that had the EMR in 2021, most LBP presentations occurred on weekdays during the hours of 8am-6pm, and over

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a third (37%) arrived via the South Australian Ambulance Service (SAAS) (refer Appendix 1 for further information). Data also suggests that ED care for LBP was biomedically focussed: 53% received an opioid medication at an average oral morphine equivalent daily dose (oMEDD) of 124 - a high dose considering clinical guidelines recommend a maximum oMEDD of 60 without specialist pain medicine input[17] and an overall maximum of 80-100.[18] In comparison, only 14% of people presenting with LBP received input from an allied health clinician and 9% received some form of pathology (testing). The average ED length of stay for these patients was 4 hours and 20 minutes, following which most (69%) were discharged. In total, this represented an estimated annual economic impact of around $3.5 million across those sites (refer Appendix 1 for detailed costing calculations).

A limited number of South Australian Hospitals spent an estimated*
***$3.5 million per annum on LBP presentations to the Emergency Department**.*

*The primary treatment provided was **opioid medication** followed by **discharge**.*

** Hospital which had the electronic medical record in 2021*

Similar impacts are felt interstate, with New South Wales (NSW) spending an estimated $7.3 million per annum on LBP-related ED presentations and hospital admissions.[6] However, hospital admission rates for LBP are much higher in South Australia (31%) than they are at national (NSW=17%)[6] or international (Canada=<10%)[19] peer equivalents, suggesting a further opportunity for review.

Leveraging for change

The lack of community-based options for LBP care inadvertently directs activity and associated costs to state-funded hospitals. As outlined above, the Chronic Pain Statewide Clinical Network (SCN) has identified that our hospitals are spending in excess of $3.5 million per annum for LBP-related ED presentations. These individuals experience lengthy waits, limited treatment outside of opioid medication and most do not require admission. Together, this suggests that the majority of LBP presentations do not need to be seen in the ED environment and that our local population and hospital services would be better served by provision of an optimal system of care that facilitates timely access to staged multidisciplinary care in the community. Redesigning a more appropriate

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care system for LBP is clearly needed to optimise health service delivery and improve patient experiences and outcomes.

The optimal system of care described in this document is an ambitious blueprint for action which invites all components of healthcare to reimagine traditional boundaries and partner broadly for change. This will require identification of resources to create critical components that can deliver improvements in the health and wellbeing of the South Australian community and in turn, better support our busy hospital systems.

It is acknowledged that the optimal system of care will need to be contextualised across the range of South Australian Local and Primary Health Networks and within state and federal funding opportunities. The proposed new components have been designed to provide flexible options for implementation (e.g., creation of standalone LBP services, co-location of LBP hubs with existing health services or future hospital avoidance centres, virtual or physical connection between components) and are suitable for extension to a range of other common health conditions (e.g., other musculoskeletal disorders, cardiovascular diseases, diabetes). As such, there are opportunities for the principles and practices embedded within the model to be rolled out more broadly to further strengthen the primary care agenda.

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LUCY'S STORY

Lucy is a 43-year-old female who is the single parent of an eighteen-month-old son. She has had pain in her back and left leg for about four months and has previously sought help for her pain from the Emergency Department (ED). During her initial visit to the ED, she had an MRI and was told she had "worn-out discs which were impacting on a nearby nerve". An outpatient appointment for an epidural injection was arranged to help with her pain and she was then discharged home. The epidural provided some benefit and Lucy then saw her GP who prescribed Panadol for pain relief. One week later her pain was "so unbearable" that she decided to call an ambulance and was taken back to the ED. When Lucy arrived, she was highly distressed and concerned that she needed surgery to "fix her worn out discs". She was worried about the flare-up of her pain in her left leg and reduced sensation in her foot and took this as a sign of her nerve "getting more compressed". Lucy reported struggling to manage duties at home, including caring for her son and said she did not have much help from family or friends.

Lucy's care outcome

Lucy's pain management has been medically focussed through analgesia, imaging, and spinal injection. Although imaging was indicated in this situation, the results were conveyed to Lucy in a way that was inaccurate and exacerbated her fear about movement. It also left her with the belief that she would not get better without surgery because "worn out discs don't heal on their own". Lucy was not given any advice about physical activities and no follow-up consultation was provided. Lucy's GP did complete a thorough physical examination and took a detailed history, but her analgesic advice was not tailored to her situation. Self-management techniques were not discussed, and psychosocial factors were not assessed or managed, despite being significant contributors to the pain experience.

Clinical assessment indicated that there were no red flags or serious pathology contributing to Lucy's pain experience. This is good news and means that optimisation of conservative management techniques using a biopsychosocial framework is the best approach to helping Lucy manage her pain. This type of care is best provided in a community care setting which includes access to appropriate allied health professionals. The use of the ED for such situations only risks escalation of inappropriate biomedical care (i.e. opioid analgesia, surgery) which can exacerbate, rather than help, the pain experience.

Objectives

The optimal system of care for the management of LBP has been designed to enhance outcomes for individuals living with this condition. We invite broad collaboration and encourage all aspects for the South Australian healthcare system to leverage the model and contextualise it to local environments and settings.

Overarching objectives

- Reduce LBP-related pain and disability, promote earlier recovery, and improve the quality of life of people with LBP.
- Improve the early assessment, management, review, and appropriate care pathway navigation for people with LBP.

System-wide and service navigation objectives

- Reduce LBP-related ED presentations by delivering a viable best-practice alternative.
- Reduce LBP-related healthcare costs and preventable hospital admissions.
- Promote multidisciplinary assessment and management of LBP within a community healthcare setting and care team.
- Reduce demand on health services through reduction of the rates of progression from acute to chronic LBP.

Person-centred objectives

- Provide evidence-informed care (including patient education and the development of self-management skills, social prescription and reassurance) to help individuals and their significant others understand how to optimise their management of LBP.
- Reduce rates of medication-related harm.
- Reduce the use of ineffective and/or unnecessary investigations and treatments.
- Promote restoration of musculoskeletal function, early return to work and maintenance of activities of daily living.
- Support provision of person-centred interventions in the management of LBP, which includes taking account of cultural background, social circumstance and health literacy.
- Support the ongoing care for people with LBP in the community, including regional and rural areas.

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Scope

The optimal system of care is designed to direct people aged 16 years and over with LBP to the most appropriate care point across the continuum from acute to chronic pain. It aims to fill the gap between GP care and ED treatment for LBP, recognising that new and innovative models are needed to address the complex health conditions which people experience in our modern society. A high-level overview of the proposed optimal system of care and triage indictors are provided in Figures 1 and 2. Together, they highlight the multiple entry points to care and emphasise community services as the primary healthcare providers for most people with LBP. Box 1 further explains the flow through the system of care for people experiencing LBP. It is acknowledged that individuals already have access to GP, pharmacy, and private services – the optimal system of care does not seek to replace this. Instead, it seeks to augment these services via the creation of publicly funded multi-disciplinary care in the community, with a particular focus on allied health input, to support the portion of our community that cannot afford fee-for-service treatments for LBP. Referral to relevant tertiary care remains an option for patients experiencing serious pathology and/or more complex presentations. Importantly, the service navigation has been designed to be consistent with the intentions of the Low Back Pain Clinical Care Standard[20] (see Appendix 2).

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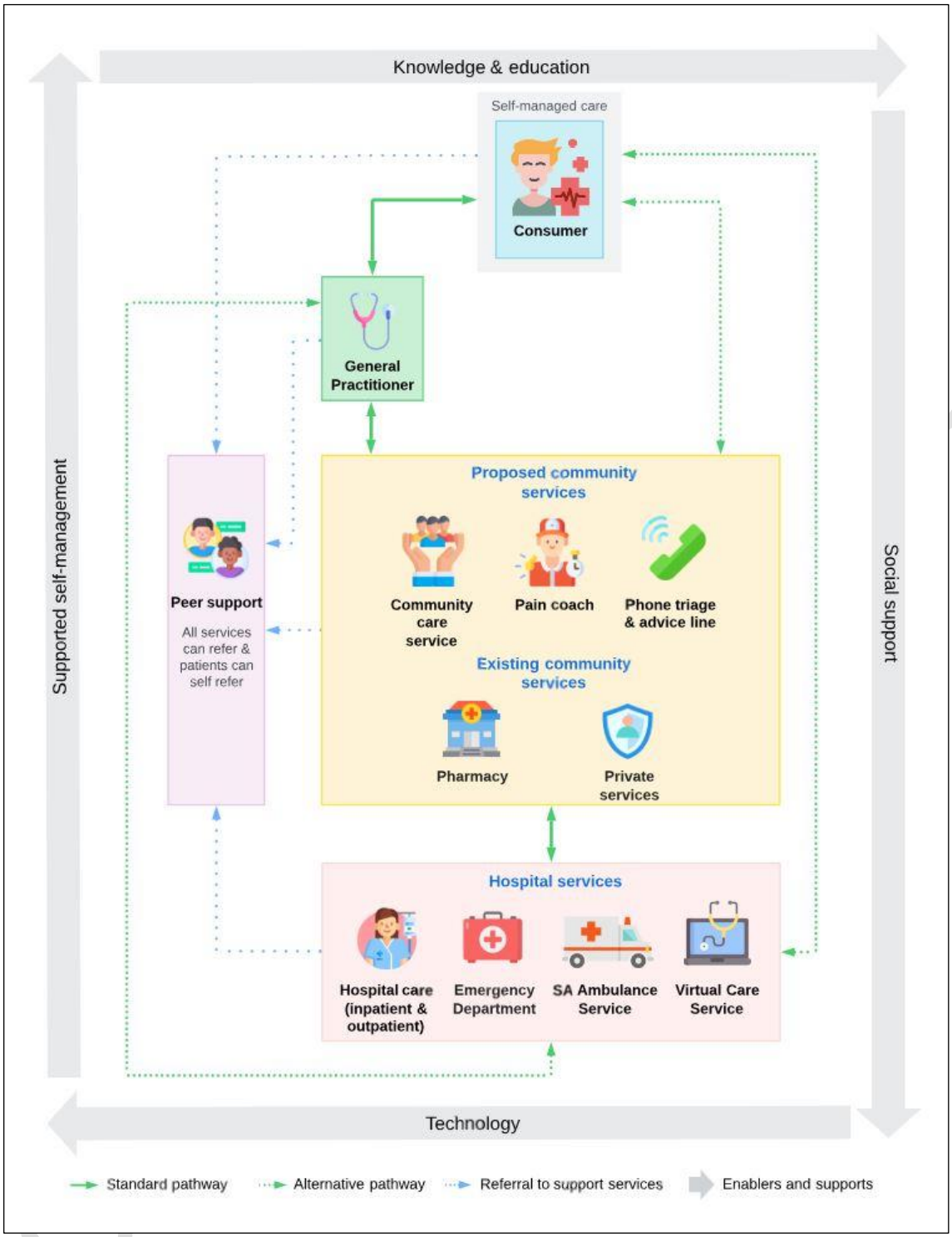

Figure 1. The proposed optimal system of care and service navigation for people experiencing low back pain.

Box 1: Care flow information

- Care for people experiencing low back pain should be provided in the most appropriate setting and as shown in Figure 1 that is usually in the community care space.
- The flow shown in Figure 1 is mostly bidirectional; people can move through the care continuum as needed.
- The flow does not preclude people entering the care continuum directly through the Emergency Department or SA Ambulance Service, however, in most cases, this won't be the optimal care pathway (i.e. care should have been provided prior to tertiary care being required).
- There are a number of places to access care in the pathway. The standard entry point in most cases is via a General Practitioner, however, other community care options exist.
- Community Care Services, Pain Coach and the Phone Triage/Advice Line are proposed new services, subject to funding availability.
- Peer Support also spans the continuum of care and can be referred into from any service or through self-referral.
- Enablers and supports are important across the continuum of care and work in parallel to care provided by each service.

✓Adult (16+ years) with LBP +/- LL pain:

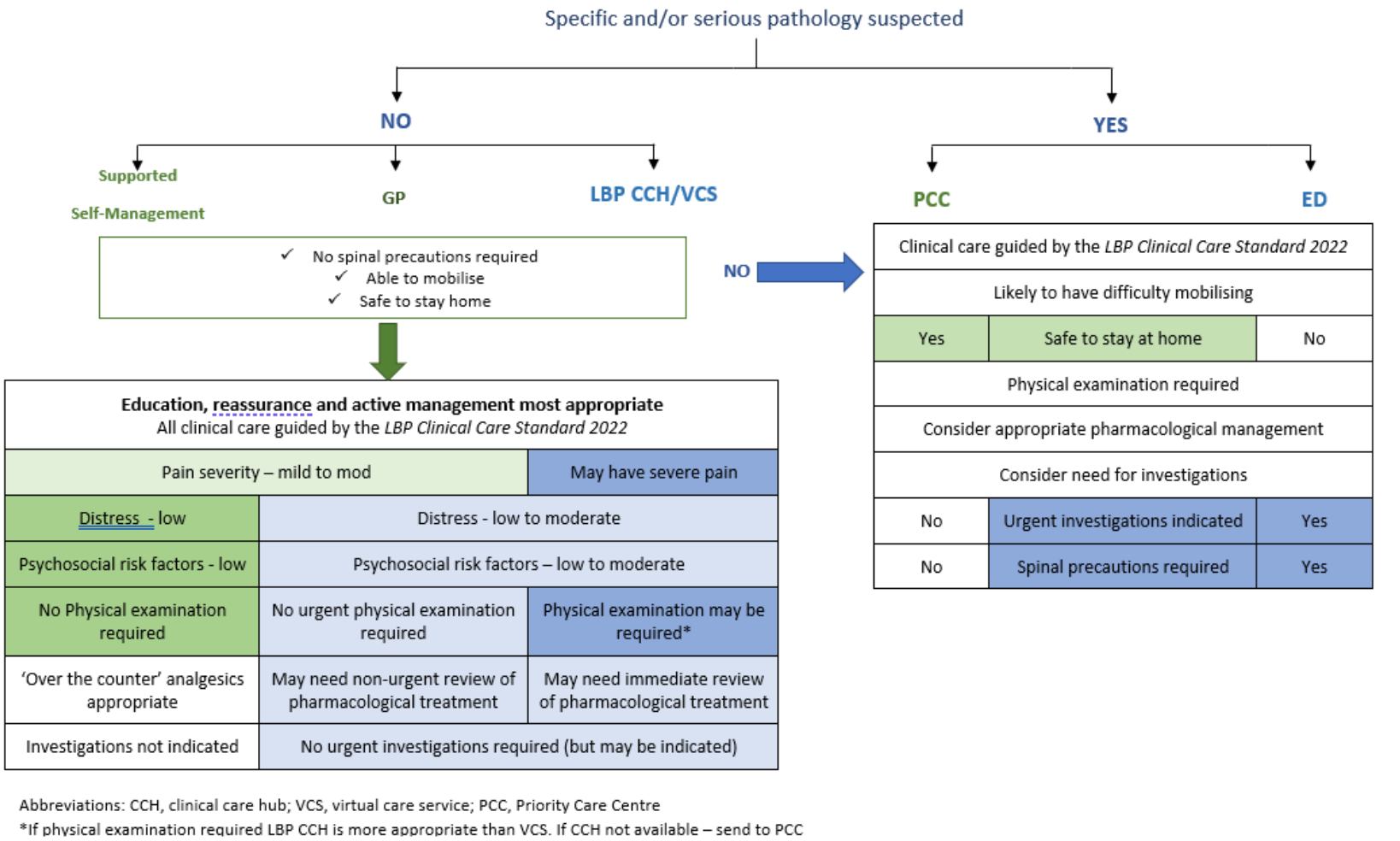

Figure 2. Triage overview - optimal system of care for people experiencing low back pain.

Key components of the optimal system of care

As can be seen in Figures 1 and 2, the proposed optimal system of care operates across all aspects of health service delivery and as previously stated, is designed to augment existing service options. Although the majority of care is envisioned to occur at the community level, the optimal system of care supports entry points within the tertiary setting for the small proportion of people who need input at that level. Escalation points also exist at every level of care so that people can be connected and (de)escalated to the most appropriate setting as clinically indicated.

Irrespective of clinical setting, the optimal system of care is designed to: address and de-escalate fear associated with pain and movement; provide individuals with the appropriate information, strategies, and reassurance to help them re-engage with activities of daily living; and enable an ongoing supported self-management approach through understanding and expectation setting with a focus on wellness. Evidence demonstrates that this biopsychosocial approach is critical to support improved outcomes for LBP.[21]

The key service components of the optimal system of care are described on the next page (see also Figure 3), acknowledging that the proposed "new" components will require a revenue stream to support their creation.

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Figure 3. Key service components of the optimal system of care for people experiencing low back pain.

GP, pharmacy, and private care (existing community care services)

Within the optimal system of care, the GP remains the primary point of care delivery and is recognised as the primary care coordinator. The system also recognises the important role of pharmacy and private providers in the provision of LBP care for members of our community. The optimal system seeks to create equity in healthcare access by providing publicly funded opportunities to augment existing services for the portion of our community who are unable to access fee-for-service providers.

Telephone service / hotline (new service)

The hotline is not intended to replace the role of the GP. It provides an additional early point of contact for consumers and clinicians seeking information and advice about LBP. It is a central point for triage and referral for consumers and can provide advice or information to clinicians to support ongoing community management. Telehealth and virtual assessments can be conducted, and patients directed to the most appropriate care facility (e.g., GP, community care service, pharmacy) within clinically indicated timelines. The hotline is intended to be run by appropriately skilled clinical staff and could be established as a standalone service, within the hub (refer below) or via connection with an existing service (e.g., SA Virtual Care Service, Health Direct).

A shared statewide triage process would underpin the service navigation and flow of care for LBP, including how the hotline and other community care services assess and treat patients. The triage overview or decision points aim to:

- Direct the appropriate flow throughout the system so that patients receive timely care in line with clinical guidelines
- Ensure patients receive the same conceptualisation, referral and treatment recommendations irrespective of the site or service at which they first seek care
- Foster inter-agency trust and reduce duplication (e.g., of assessments, tests etc.)
- Reduce utilisation of contra-indicated tests and imaging
- Improve patient experience and reduce avoidable health service expenditure.

An overview of the triage process is illustrated in Figure 2. Detailed triage guidelines linked to clinical decision-making would need to be developed to support local models of care.

Hub of community care services (new service)

The establishment of a hub of community-based services that provides patients with rapid access to multidisciplinary assessment, brief intervention, and management (see Figure 4) is in line with evidence informed guidelines and clinical care standards for LBP. This type of care is not provided via ED, is best placed in the community, and is predominantly delivered via private models that are out of reach - either physically or financially - for many people. As such, community hubs add a critical service within the community care setting.

Rapid access

A thorough clinical assessment of individuals presenting with LBP should occur as early as possible to support access to education and management, with the goal of empowering individuals to take control of their condition. Good clinical assessment is an important step in patient reassurance and

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has been shown to reduce the use of unnecessary or ineffective investigations and pharmaceutical agents.[22] Rapid access mechanisms may include:

- Walk-in presentations
- Pre-booked assessments (e.g., referred from the triage hotline or other health service)
- Diversion from ED or other hospital/healthcare service
- Receipt of SAAS transfers.

Multidisciplinary intervention

Evidence-informed intervention will be personalised and may involve input from a range of clinicians including (but not limited to) physiotherapists, psychologists, occupational therapists, pharmacists, nurses, or medical practitioners. Services may be delivered individually or as part of a group and may incorporate virtual components. Interventions delivered through the community hubs may include:

- Patient education and reassurance
- Training in self-management strategies
- Cognitive behavioural therapy
- Supervised and/or guided movement (delivered within the hubs or through guided home-based exercise programs and paced activity)
- Analgesia review
- Social support services.

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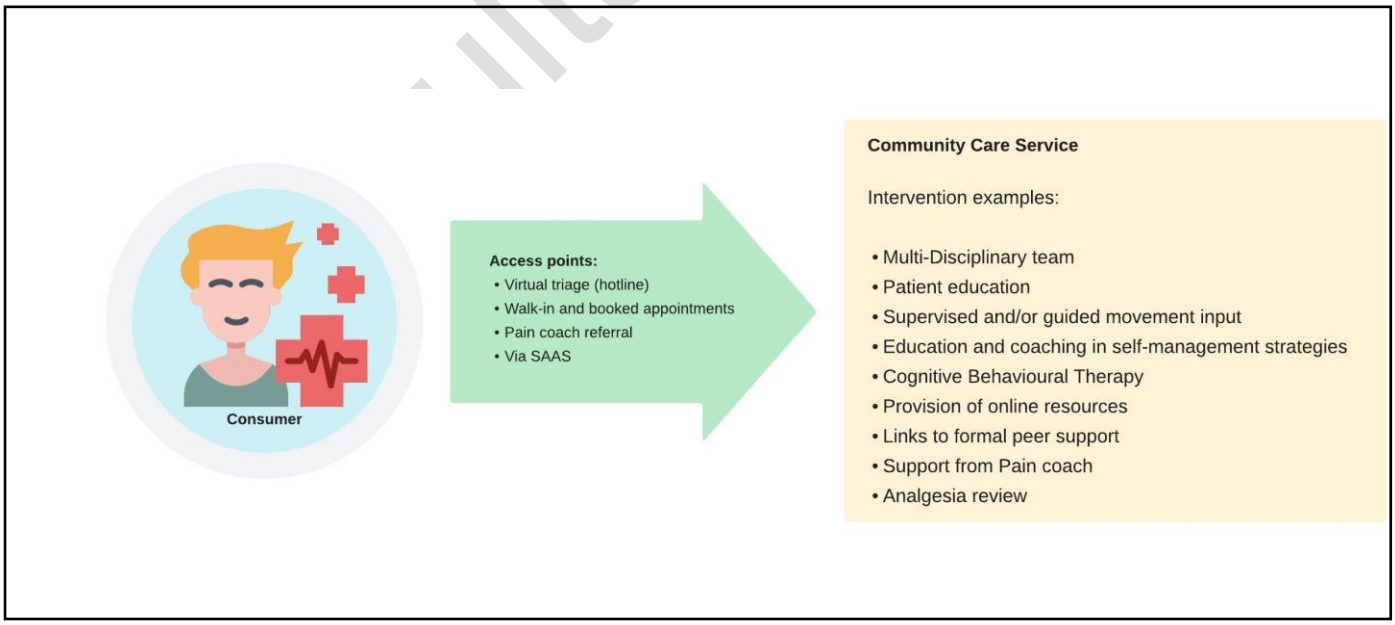

Figure 4. Components of the proposed new hub of community care services.

Pain coaches (new service)

LBP pain coaches will sit alongside the hub of community care services, as an additional but integral component of the community care model. They may be physically co-located with community hubs and/or hotline services or provided via outreach from another location. These roles will provide evidence-informed health coaching and patient education and will help individuals to learn and utilise self-management strategies. The role has been conceptualised around an extended understanding of the care 'navigator' models which have proven to be clinically and fiscally effective across a range of complex conditions (e.g., Nurse Navigator roles in diabetes management, McGrath Foundation Breast Care Nurses).[23,24] LBP coaches will improve the way that LBP is managed in the community by:

- Supporting the re-conceptualisation of LBP; framing it within contemporary principles of neuroscience
- Providing reassurance, encouragement and support for patients to move and re-engage with life
- Strengthening targeted social prescription approaches to support adaptive behaviour change
- Facilitating service navigation.

Peer support (new service)

There is a growing evidence-base for the efficacy of peer support in enhancing pain management.[25] Peer support provided by people with lived experience of LBP can be an extremely valuable method for enhancing use of self-management and coping strategies. Peer support can be delivered in group or individual formats, and by face-to-face or virtual methods. It is recognised as a cost-effective method of improving health and wellbeing for common, costly, and disabling conditions.[26]

Peer support is connected across all levels of the optimal system of care and is an important adjunct to the enabling factors that the system sits within.

ED and hospital care (existing tertiary services)

ED and hospital care is an appropriate service location for people with serious pathologies. It is recognised that this represents a small proportion of the overall LBP population and that clear clinical guidelines exist for the assessment and management of this patient cohort.

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Enabling factors

All healthcare is delivered within a range of environmental conditions that are specific to the individual and/or health services. The optimal system of care interacts with four key enablers that can offer further supports for people experiencing LBP. These are described below.

Supported self-management

Evidence recommends education that supports self-management and resumption of normal activities and exercise.[12] Self-management aims to empower individuals to manage their pain and continue to engage in activities of daily living as normally as possible, including engaging with work. Evidence shows that those who actively manage their pain have better outcomes.

Knowledge and education

Patient-centred health education, leading to informed self-management of LBP is arguably the most important aspect of care that health professionals can provide. There is indirect evidence that high quality, person-focused health education alone may reduce the length of time that LBP persists, particularly in the acute phase.[27] Evidence-informed education about the principles of pain neuroscience help people understand how and why their body is responding in the way it is, challenge fear responses and promote more adaptive behaviours. This also drives more appropriate health care utilisation, decreasing avoidable presentations and use of unnecessary imaging and medications. Improving community health literacy around pain and its management would provide substantial support for the optimal system of care.

Practitioner education is also critical. Not all practitioners understand contemporary pain science and some use unhelpful language that can perpetuate the cycle of disability. Workforce development is also a critical issue when creating or expanding health services. The limited availability of trained professionals with a strong understanding of, and experience in, the principles of pain management exacerbate the issue of access to appropriate care for LBP. It also limits the availability of training opportunities for emerging clinicians. Building the optimal system of care to support people experiencing LBP presents an opportunity to strengthen the clinical workforce for pain management by providing a training pathway for student clinicians. Preliminary conversations with university partners indicate a strong desire to support the optimal system of care via creation of additional training prospects (e.g., student-led clinics) which will immediately extend the reach of the community hubs and provide a sustainable investment in developing our pain-trained workforce for the future.

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Social support

Pain is a social construct – influenced by the individual experiencing it, as well as the environment around them. Social support/connection can either optimise self-management strategies and support positive choices and behaviours, or it can undermine pain management. Educating significant others is a critical step in promoting optimal pain management. Formal peer support groups and agencies can also provide powerful input.

Technology

The optimal system of care is underpinned by health technologies, including virtual care opportunities, and better integrating data to inform healthcare practice. The use of digital health aims to: optimise service reach whilst simultaneously minimising service costs; ensure equity in access irrespective of location of residence; support the provision of group-based interventions across a broad section of the community/cohort of patients; and promote future sustainability.

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DAVID'S STORY

David is a 21-year-old male who is a childcare worker. He has no previous history of low back pain and considers himself to be fit and healthy. During a recent shift at work, David felt a “pull” and “severe twinge” in his lower back after picking up a child who needed care. David thought the pain would go away on its own and did not seek input from his GP. David’s girlfriend suggested that he should see a physiotherapist to get some expert advice, but he didn’t want to spend lots of money on treatment when they were trying to save for an overseas holiday. David described his pain as “awful”, but he didn’t take any pain relief medication. The next day, he was still able to go about most of his daily activities but could feel that his low back pain was getting worse. Later in the day, when his pain wasn’t improving, David decided to go to the Emergency Department (ED). When he arrived, the ED was incredibly busy, with lots of people needing urgent medical attention. He was triaged as non-urgent and waited six hours before being seen by a doctor. After sitting in the same position for several hours, David was thinking the worst. He could feel his back “seizing up” and was becoming increasingly worried that he had a serious spinal injury, such as a fracture. When he finally saw a doctor, he told them that he needed an x-ray to see what was going on.

David’s care outcome

Imaging was not indicated in this situation, but David was provided with an x-ray. The results of the scan showed “some changes in his spine”, but he was told it was “nothing to worry about”. David thought the x-ray would provide him with a definitive diagnosis for his low back pain but instead he was left feeling confused and scared to move his body for fear of making his pain worse. David was sent home with a prescription for strong pain medication, which he had never taken before. He was not given any advice about the cautious use of analgesia. The importance of gradual movement and physical activity wasn’t explained to David and no follow-up consultation was provided. David went home with the belief that he would need lots of time off work to ensure he didn’t “make his injury even worse”.

Clinical assessment indicated that there were no red flags or serious pathology contributing to David’s pain experience. His assessment and management would have been better placed in community care, such as with a GP, physiotherapist, or other community healthcare professional. Early assessment and management of his low back pain did not occur, and conservative management was not optimised. This represents a missed opportunity to provide David with good quality education about what to do at home to manage his pain and maintain function.

Outcomes and next steps

If we re-imagine the way that LBP care is delivered in this state by creating a system to support easily accessible brief intervention early in the pain cycle, we can disrupt the cycle of pain and the associated cycle of contra-indicated healthcare use. Early access to evidence-informed care for LBP is expected to improve community health and wellbeing, reduce LBP-related disability, reduce acute-chronic LBP transition rates, decrease use of contra-indicated tests and procedures, and reduce medication related harms. For those who do transition to chronic LBP, delivering a system that supports evidence-informed self-management and facilitates care coordination across the sector can reduce the harm caused by iatrogenic factors such as being indefinitely waitlisted for treatment. Achieving these aims is also expected to decrease avoidable LBP-related ED presentations and admissions, therefore supporting our community and our hospital systems.

Articulating the optimal system of care for LBP is the first step in the process of building more effective pain services across this state. The work to establish the optimal system of care is an evolving conversation. Health systems around the world are challenged by how to commission pain management services. There is now clear evidence that in the absence of publicly funded community-based services, South Australian public hospitals are investing more than $3.5 million per annum into the management of LBP – and yet largely failing to meet community needs or adhere to best practice clinical guidelines which require brief community-based intervention rather than one-off emergency department care.

Implementation will require resource identification and health system reform to create the critical components required to provide appropriate care for LBP but arguably, there is scope in the system to do this. The proposed optimal system of care is strategically flexible by design. Key principles are that components be publicly funded, community-based and provide timely access to an appropriately skilled multidisciplinary team. This could be delivered across a range of potential settings (e.g., creation of standalone LBP services, co-location of LBP hubs with existing health services or future hospital avoidance centres) and expanded to improve care for a range conditions (e.g., other musculoskeletal disorders, cardiovascular diseases, diabetes).

Implementation will also need to be contextualized within the landscape of Local and Primary Health networks – with the final model of care and clinical triage criteria developed at the local level. This

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creates opportunities to establish the system under a statewide approach or to pilot components within particular Health Networks.

Demonstrating the cost-effective patient benefit will be critical for implementation and future sustainability. Understanding how strategies to improve pain management at the community-level can be integrated with other care pathways and frameworks so that innovation can be leveraged broadly across the system will also be important.

It is hoped that there will be widespread interest in bringing the optimal system of care to fruition and the Chronic Pain SCN looks forward to partnering broadly to support our health services to realise the vision.

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EMILY'S STORY

Emily is a 62-year-old female with a long-standing history of recurrent episodes of low back pain. She lives at home with her family. Over the years, Emily's primary pain management strategies have included hands-on physiotherapy appointments and sporadic use of anti-inflammatory medication to manage flare-ups. She has seen various specialists, including an orthopaedic surgeon and neurosurgeon. She had back surgery approximately 9 years ago and has also had facet joint injections. Emily said that neither intervention helped her back pain in fact, she said that they "made it worse". Recently, Emily's pain has been much worse than ever before. Her GP has advised that there is at least a 12-month wait to be seen by a public pain clinic. Cost of living pressures and Emily's plans for retirement mean that she feels seeing a private physiotherapist or psychologist, as recommended by her GP, would be unaffordable for her. Emily's GP offered her an Enhanced Primary Care Plan (ECP) so that she can receive Medicare-subsidised allied health appointments, but that would only cover five appointments in total across any given year and she would still have to pay a gap fee. Emily is not currently able to work because of her low back pain and she has become quite sedentary. She had been looking forward to working part-time as she got nearer to retirement but now feels this may not be possible if she has no other option than to seek private treatment for her low back pain. She is incredibly worried that her retirement years will be spent feeling hopeless and, in more pain, than she has ever experienced before.

Emily's care outcome

Emily's GP provided her with appropriate care. The GP had taken a thorough history of Emily's previous low back pain and treatment and had identified that both physiotherapy and psychology could help manage Emily's current pain experience. Unfortunately, her inability to access affordable community healthcare options left Emily feeling distressed and overwhelmed. Emily's GP asked to see her in one weeks' time for a follow-up consultation.

Emily's situation made it difficult for her to access the community healthcare she needed to support her pain experience. If Emily were able to access a (co-located) community care hub with a multidisciplinary team experienced in treating and managing low back pain, she would have received care early, including rapid clinical assessment and felt reassured about her situation. Patient education, including the provision of self-management techniques, and social support could have provided Emily with a different care experience and enabled her to feel more optimistic about the low back episode she was experiencing. Without accessible and affordable healthcare for low back pain, attendance in the ED is exacerbated, including reliance on the SA Ambulance Service to get patients there.

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Appendix 1: LBP Emergency Department Presentations – Descriptive information and Costing Calculations

Emergency Department Presentations: 2017-2021 data

	N	%
Total Presentations	12511	100
Mode of Presentation		
SAAS transfer	4676	37
Self-presented	5832	47
Unknown	2003	16
Day of Presentation		
Week day	8970	72
Weekend	3541	28
Time of Presentation		
8am-6pm	7757	62
6pm-8am	4754	38

Emergency Department Care Costing Calculation: 2021 data

Costing category	N presentations	Av cost per presentation	Total cost 2021
Triage category 3	2090	758	~$1.58 million
Triage category 4	2558	531	~$1.36 million
SAAS transfer	2183	298	~$650,000
TOTAL cost for LBP presentations to ED in 2021			*~$3.5 million*

Data Source EMR: Public Hospital sites of RAH, TQEH, Flinders, Noarlunga, Mount Gambier & Port Augusta
Triage code = E0980C
SAAS transfer assumptions: $237 + $6.10/km – averaged at 10km per patient transfer

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Appendix 2: Low Back Pain Clinical Care Standard

The Low Back Pain Clinical Care Standard (2022) aims to improve the early assessment, management and referral of patients with LBP, and to improve shared decision-making about which tests, and treatments are most effective in managing LBP. It covers the early management of an acute presentation of LBP that is new, recurrent or an exacerbation of chronic LBP. However, it does not describe the ongoing management of chronic LBP.

The eight quality statements to support LBP care include:

1. Initial assessment focussing on screening for specific and serious pathology, history taking and physical examination.
2. Psychosocial assessment.
3. Imaging will be reserved for suspected serious pathology.
4. Patient education and provision of information to address concerns and expectations.
5. Promotion of supported self-management and paced physical activity.
6. Physical and psychological therapies which optimise non-pharmacological management.
7. Judicious use of pain medicines.
8. Review and onward referral (as required).

For more information about the Low Back Pain Clinical Care Standard, visit: https://www.safetyandquality.gov.au/standards/clinical-care-standards/low-back-pain-clinical-care-standard

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