



MICHIGAN QUALITY IMPROVEMENT CONSORTIUM (MQIC) GUIDELINE FEEDBACK FORM

MQIC GUIDELINE TITLE: Management of Acute Low Back Pain in Adults

DATE: 10/23/2020

NAME/TITLE: Tim Phillips, PT, DPT; Michael Shoemaker, PT, DPT, PhD HEALTHPLAN/ORGANIZATION: American Physical Therapy Association Michigan Chapter

Instructions:

- Use one form per guideline (form has multiple pages)
- Complete a separate page as indicated for **each recommended change**
- If there are no recommendations for change, check the box at the top of page 2 *“I agree with the guideline as written”* and return the form as instructed below
- Return completed form with reference/source materials electronically to Tracy Zdeb (tzdeb@bcbsm.com).

Please remember the following points:

The MQIC guidelines...

- are distilled down to one brief, evidence-based guideline per condition (limited to one side of one page)
- should focus on those aspects of care where scientific evidence exists and that aspect of care really matters (adverse outcome if care is not optimal) or
- where the greatest gaps in care exist or
- what’s causing the most preventable disability or death (e.g., ESRD, MI, CVA, etc.), ED visits or hospitalizations

SECTION OF GUIDELINE TO BE CHANGED (check one):

Guideline Title ↑	Guideline Summary ↑	Statement Eligible Population ↑	Key Components ↑
Recommendation XXX↑	Level of Evidence ↑	Frequency ↑	Footnotes ↑

CURRENT GUIDELINE WORDING:

Reassure: 90% of episodes resolve within 6 weeks regardless of treatment.

PROPOSED NEW GUIDELINE WORDING & LEVEL OF EVIDENCE (check one):

A = randomized controlled trials ↑ **B = controlled trials ↑** **C = observational studies ↑ C** **D = opinion of expert panel ↑**

Recommend deleting this statement.

RATIONALE FOR CHANGE:

This faulty assertion was first made by Dillane et al¹ who conducted a record review of a single general practice where the duration was measured as the number of weeks from the first to the last consultation with the general practitioner. The assumption was that the final physician consultation represented the resolution of symptoms.

Croft et al² debunked this assumption: “Although 90% of patients ceased to consult with their general practitioner concerning their symptoms after three months, most still had substantial low back pain and related disability” and in fact only 25% of patients had fully recovered from their low back pain in one year. Even if the work by Croft et al² represents the most liberal estimate, the conservative estimate by Mehling et al³ still represents a substantial proportion of patients who go on to develop recurring episodes (54% at 6 months and 47% at 18 months) or chronic pain (19% at 2 years).

The persisting nature of low back pain symptoms was incidentally noted in a meta-analysis by Artus et al⁴ that was studying whether patients enrolled in RCTs are similar to those seen in general practice.

Although we appreciate the intent of the current wording directed toward re-assuring the patient, the current wording also serves as a tacit and implicit direction to providers to assume most LBP cases will resolve without any intervention.

REFERENCE/SOURCE (please supply electronically if available):

1. Dillane J, Fry J, Kalton G. Acute back syndrome-A study from general practice. BMJ. 1966. 2: 82-84.
2. Croft P, Macfarlane G, Papageorgiou A, Thomas E, Silman A. Outcome of low back pain in general practice: a prospective study. BMJ. 1998. Vol. 316:1356-59.

3. Mehling WE, Gopisetty V, Bartmess E, et al. The prognosis of acute low back pain in primary care in the United States: a 2-year prospective cohort study. *Spine (Phila Pa 1976)*. 2012;37(8):678-684. doi:10.1097/BRS.0b013e318230ab20
4. Artus M, van der Windt D, Jordan KP, Croft PR. The clinical course of low back pain: a meta-analysis comparing outcomes in randomised clinical trials (RCTs) and observational studies. *BMC Musculoskelet Disord*. 2014;15:68.

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Guideline Title ¹	Guideline Summary ¹	Statement Eligible Population ¹	Key Components ¹
Recommendation XXX ¹	Level of Evidence ¹	Frequency ¹	Footnotes ¹

CURRENT GUIDELINE WORDING:

Testing/Assessment: Depression screening recommended [B] (PHQ-9), since concurrent coincident depression worsens prognosis.

PROPOSED NEW GUIDELINE WORDING & LEVEL OF EVIDENCE (check one):

A = randomized controlled trials ¹ **B = controlled trials** ¹ **B** **C= observational studies** ¹ **D= opinion of expert panel** ¹

Testing/Assessment: Screening for common risk factors for development of recurrent and chronic pain is recommended. Risk factors for recurrent pain include: (1) history of previous episodes, (2) excessive spine mobility, and (3) excessive mobility in other joints. Risk factors for chronic pain include: (1) presence of symptoms below the knee, (2) psychological distress or depression, (3) fear of pain, movement, and reinjury or low expectations of recovery, (4) pain of high intensity, and (5) a passive coping style. [B]

RATIONALE FOR CHANGE:

Screening for risk factors for development of recurrent pain and chronic pain are Level B evidence in the physical therapist low back pain clinical practice guideline.⁵ Halting the progression from acute to chronic pain is unlikely without adequate screening and appropriately matched care. A recent systematic review summarizes the association between acute-subacute back pain and psychosocial predictors of chronicity:⁶

- 4 studies detected an association with depression, ([Casey, Greenberg, Nicassio, Harpin, & Hubbard, 2008](#); [Gatchel, Bernstein, Stowell, & Pransky, 2008](#); [Koleck, Mazaux, Rascle, & Bruchon-Schweitzer, 2006](#); [Pulliam, Gatchel, & Gardea, 2001](#))
- 4 studies found fear avoidance related with chronicity, ([Boersma & Linton, 2006](#); [Brox et al., 2005](#); [Buer & Linton, 2002](#); [Swinkels-Meewisse et al., 2006](#))
- 2 studies identified pain catastrophizing as being an indicator for chronicity ([Buer & Linton, 2002](#); [Grotle, Foster, Dunn, & Croft, 2010](#)).
- Other psychosocial predictors of the development of chronic pain included: expectancy of pain and negative affect, ([Boersma & Linton, 2006](#)) high traumatic exposure, ([Casey et al., 2008](#)) emotional distress ([Gatchel et al., 2008](#)) and helplessness-hopelessness, including negative beliefs ([Koleck et al., 2006](#)).

In addition, one of the studies developed an 8-item clinical decision rule (CDR), which included various psychosocial factors classifying patients into three risk levels for the development of chronic back pain, although validation for this tool is still needed ([Mehling, Ebell, Avins, & Hecht, 2015](#))⁷.

A recent Cochrane review found that individual recovery expectations are probably strongly associated with future work participation (moderate-quality evidence) and may be associated with clinically important recovery outcomes (low-quality evidence).⁸

Another systematic review found that show that self-efficacy ($\beta = 0.23$, 95% confidence interval [CI] = 0.10 to 0.34), psychological distress ($\beta = 0.10$, 95% CI = 0.01 to 0.18), and fear ($\beta = 0.08$, 95% CI = 0.01 to 0.14) mediated the relationship between pain and disability, but catastrophizing did not ($\beta = 0.07$, 95% CI = -0.06 to 0.19).⁹

Use of psychologically informed screening tools like the STarT Back Tool can successfully separate patients into distinct categories of risk for persistent disabling back pain at 6-month follow-up in a US primary care sample.¹⁰ Psychosocial factors left unidentified and untreated lead to higher healthcare utilization and expenditures.¹¹

REFERENCE/SOURCE (please supply electronically if available):

5. Delitto A, George SZ, Van Dillen L, et al. Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther.* 2012;42(4):A1-A57.
6. Hruschak V, Cochran G. Psychosocial predictors in the transition from acute to chronic pain: a systematic review. *Psychol Health Med.* 2018;23(10):1151-1167. doi:10.1080/13548506.2018.1446097
7. Mehling WE, Ebell MH, Avins AL, Hecht FM. Clinical decision rule for primary care patient with acute low back pain at risk of developing chronic pain. *Spine J.* 2015;15(7):1577-1586. doi:10.1016/j.spinee.2015.03.003
8. Hayden JA, Wilson MN, Riley RD, Iles R, Pincus T, Ogilvie R. Individual recovery expectations and prognosis of outcomes in non-specific low back pain: prognostic factor review. *Cochrane Database of Systematic Reviews* 2019, Issue 11. Art. No.: CD011284. DOI: 10.1002/14651858.CD011284.pub2.
9. Lee H, Hübscher M, Moseley GL, et al. How does pain lead to disability? A systematic review and meta-analysis of mediation studies in people with back and neck pain. *Pain.* 2015;156(6):988-997. doi:10.1097/j.pain.000000000000146
10. Suri P, Delaney K, Rundell SD, Cherkin DC. Predictive Validity of the STarT Back Tool for Risk of Persistent Disabling Back Pain in a U.S. Primary Care Setting. *Arch Phys Med Rehabil.* 2018 Aug;99(8):1533-1539.e2. doi: 10.1016/j.apmr.2018.02.016. Epub 2018 Apr 3. PMID: 29625095; PMCID: PMC6064386.
11. Traeger AC, Hübscher M, Henschke N, et al. Emotional distress drives health services overuse in patients with acute low back pain: a longitudinal observational study. *Eur Spine J.* 2016;25(9):2767-2773. doi:10.1007/s00586-016-4461-0

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Guideline Title ¹	Guideline Summary ¹	Statement Eligible Population ¹	Key Components ¹
Recommendation ¹ XXX	Level of Evidence ¹	Frequency ¹	Footnotes ¹

CURRENT GUIDELINE WORDING:

Current wording does not exist.

PROPOSED NEW GUIDELINE WORDING & LEVEL OF EVIDENCE (check one):

A = randomized controlled trials ¹ A B = controlled trials ¹ C = observational studies ¹ D = opinion of expert panel ¹

Therapy: When a directional preference is identified, use directional preference interventions/exercises. [B]

RATIONALE FOR CHANGE:

Use of directional preference in the management of low back pain as Level A evidence is included in the physical therapy low back clinical practice guideline.¹² Mechanical Diagnosis and Therapy (MDT) demonstrates an association with improving fear-avoidance beliefs, pain self-efficacy, depression, and psychological distress.¹³ Studies classified as adherent to the MDT approach showed greater reductions in pain and disability compared to nonadherent trials.¹⁴ Studies comparing manual therapy to MDT in patients with chronic LBP demonstrate greater decreased pain in the short term and better function in the long term.¹⁵

REFERENCE/SOURCE (please supply electronically if available):

12. Delitto A, George SZ, Van Dillen L, et al. Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. J Orthop Sports Phys Ther. 2012;42(4):A1-A57.
13. Kuhnaw A, Kuhnaw J, Ham D, Rosedale R. The McKenzie Method and its association with psychosocial outcomes in low back pain: a systematic review [published online ahead of print, 2020 Jan 7]. Physiother Theory Pract. 2020;1-15. doi:10.1080/09593985.2019.1710881
14. Halliday MH, Garcia AN, Amorim AB, Machado GC, Hayden JA, Pappas E, Ferreira PH, Hancock MJ. Treatment Effect Sizes of Mechanical Diagnosis and Therapy for Pain and Disability in Patients With Low Back Pain: A Systematic Review. J Orthop Sports Phys Ther. 2019 Apr;49(4):219-229. doi: 10.2519/jospt.2019.8734. Epub 2019 Feb 13. PMID: 30759358.
15. Namnaqani FI, Mashabi AS, Yaseen KM, Alshehri MA. The effectiveness of McKenzie method compared to manual therapy for treating chronic low back pain: a systematic review. J Musculoskelet Neuronal Interact. 2019;19(4):492-499.

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Recommendation ¹ XXX	Level of Evidence ¹	Frequency ¹	Footnotes ¹

CURRENT GUIDELINE WORDING:

Referral: If persistent disability at 2 weeks, consider referral for physical therapy to improve strength and flexibility, not modalities such as traction, ultrasound, paraspinal injections or TENS.

PROPOSED NEW GUIDELINE WORDING & LEVEL OF EVIDENCE (check one):

A = randomized controlled trials ¹ [A] **B = controlled trials** ¹ **C= observational studies** ¹ **D= opinion of expert panel** ¹

Referral: Do not delay early access to movement- and activity-based physical therapy as both cost and clinical outcomes are improved when early access to physical therapy is permitted. [A] Avoid use of passive modalities such as traction, ultrasound, paraspinal injections or TENS. [A]

RATIONALE FOR CHANGE:

The benefits of early access to physical therapy with back pain are clearly and consistently evidenced claims data totaling nearly 1.2 million patients across multiple studies.¹⁶⁻²⁵ A majority of these studies also demonstrate that the cost and outcome benefits are greater when the physical therapist is the entry point for low back pain-associated health care encounters. As summarized by Ohja et al:²⁶

Current United States practice guidelines and reported clinical practice patterns on spinal pain reflect a common practice of delayed physical therapy referral using a wait-and-see approach to initially manage musculoskeletal pain.

In 2 retrospective studies, it was reported that individuals who initiated physical therapy within 14 days of the primary care index date had a mean decreased cost of \$2736.23 per episode. None of the studies reported a risk of adverse patient events or outcomes associated with initiating physical therapy early, suggesting that risk to the patient could be decreased with early physical therapy initiation through decreased medical diagnostics and interventions.

...there is preliminary evidence for a dose-response relationship of less time to physical therapy initiation leading to a decrease in overall medical utilization, including imaging, opioid medications, injections, and surgery. This relationship suggests that physical therapy should be initiated as early as is feasible to minimize cost, medical utilization, and potential iatrogenic harm, though further investigation is required with prospective study designs.

Though most improve over time, a percentage of individuals with acute LBP (Hill and Fritz suggest approximately 28%) are at risk for developing chronic pain. A minority of individuals with chronic and complex spinal pain account for the majority of associated health care costs.

REFERENCE/SOURCE (please supply electronically if available):

16. Pendergast P et al. Physician-Referred and Self-Referred Episodes of Outpatient Physical Therapy. *Health Serv Res.* 2012 Apr;47(2):633-654.
17. Horn ME et al. Timing of physical therapy consultation on 1-year healthcare utilization and costs in patients seeking care for neck pain: a retrospective cohort. *BMC Health Serv Res.* 2018;18(1):887-896.
18. Sun E et al. Association of Early Physical Therapy With Long-term Opioid Use Among Opioid-Naive Patients With Musculoskeletal Pain. *JAMA Network Open.* 2018;1(8):e185909.
19. Liu et al. Immediate Physical Therapy Initiation in Patients With Acute Low Back Pain Is Associated With a Reduction in Downstream Health Care Utilization and Costs. *Phys Ther.* 2018;98(5):336-347.
20. Arnold et al. The Effect of Timing of Physical Therapy for Acute Low Back Pain on Health Services Utilization: A Systematic Review. *Archives of Physical Medicine and Rehabilitation* 2019;100:1324-38.
21. Kazis et al. Observational retrospective study of the association of initial healthcare provider for new-onset low back pain with early and long-term opioid use. *BMJ Open* 2019;9:e028633. doi:10.1136/bmjopen-2018-028633.
22. Milliman, Inc. Impact of physical therapist services on low back pain episodes of care. April 12, 2018.
23. The Moran Company (2017). Initial Treatment Intervention and Average Total Medicare A/B Costs for FFS Beneficiaries with an Incident Low Back Pain (Lumbago) Diagnosis in CY 2014. Available at: <http://www.apptqi.com/Resources/documents/APTQI-Complete-Study-Initial-Treatment-Intervention-Lumbago-May-2017.pdf>
24. The Moran Company (2017). Physical Therapy Episodes for Low Back Pain: Medicare Spending and Intensity of Physical Therapy Services. Available at: <https://www.apptqi.com/Resources/documents/APTQI-Complete-Study-Physical-Therapy-Episodes-Lumbago-October-2017.pdf>
25. Frogner BK et al. Physical Therapy as the First Point of Care to Treat Low Back Pain: An Instrumental Variables Approach to Estimate Impact on Opioid Prescription, Health Care Utilization, and Costs. *Health Serv Res.* 2018 Dec;53(6):4629-4646.
26. Ohja HO et. al. Timing of Physical Therapy Initiation for Nonsurgical Management of Musculoskeletal Disorders and Effects on Patient Outcomes: A Systematic Review. *J Orthop Sports Phys Ther* 2016;46(2):56–70. Epub 11 Jan 2016. doi:10.2519/jospt.2016.6138