Algorithms for the chiropractic management of acute and chronic spine-related pain

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Research

Algorithms for the Chiropractic Management of Acute and Chronic Spine-Related Pain

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Abstract

The complexity of clinical documentation and case management for health care providers has increased along with the rise of managed care. Keeping up with the policies of different insurers and third party administrators can be a daunting task. To address these issues for doctors of chiropractic (DCs) and policymakers, the Council for Chiropractic Guidelines and Practice Parameters (CCGPP) developed three consensus documents. Each of these documents was the outcome of a formal consensus process in which a multidisciplinary Delphi panel consisting of experts in chiropractic and low back pain treatment came to agreement on terminology and treatment parameters for the chiropractic management of spine-related musculoskeletal pain.¹⁻³

Introduction

The complexity of clinical documentation and case management for health care providers has increased along with the rise of managed care. Keeping up with the policies of different insurers and third party administrators can be a daunting task. To address these issues for doctors of chiropractic (DCs) and policymakers, the Council for Chiropractic Guidelines and Practice Parameters (CCGPP) developed three consensus documents. Each of these documents was the outcome of a formal consensus process in which a multidisciplinary Delphi panel consisting of experts in chiropractic and low back pain treatment came to agreement on terminology and treatment parameters for the chiropractic management of spine-related musculoskeletal pain.¹⁻³ Their recommendations were based on a combination of...
consideration of the current evidence and their clinical judgment. In addition, another consensus document related to care rendered by doctors of chiropractic for the purpose of health promotion, disease prevention, and wellness, developed through a project funded by the NCMIC Foundation, was also referenced to clarify terminology used in the algorithms.\(^4\) (See Table 1.)

**Table 1. Definition of terms related to acute and chronic care.**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medically necessary care of acute conditions</td>
<td>“care that is reasonable and necessary for the diagnosis and treatment of a patient with a health concern and for which there is a therapeutic care plan and a goal of functional improvement and/or pain relief.”(^1,p.461)</td>
</tr>
<tr>
<td>Medically necessary care for recurrent/chronic conditions</td>
<td>“care that is provided when the injury/illness is not expected to completely resolve after a treatment regimen but where continued care can reasonably be expected to result in documentable improvement for the patient.”(^1,p.461)</td>
</tr>
<tr>
<td>Chiropractic management of chronic/recurrent conditions</td>
<td>“Chiropractic care provided for the purpose of preventing relapse and/or exacerbations of the original complaint(s) as well as associated comorbidities.”(^2,p.560)</td>
</tr>
<tr>
<td>Chiropractic wellness care or preventive care</td>
<td>“Chiropractic care provided for the purpose of preventing disease, optimizing function, and supporting the patient’s wellness-related activities.”(^2,p.560)</td>
</tr>
</tbody>
</table>

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In order to make the recommendations in these three documents more accessible to users, the CCGPP created a set of algorithms based on these consensus recommendations. Clinical algorithms essentially provide a map to guide the practitioner in case management, especially for complex and multifactorial conditions. Using evidence-based clinical algorithms supports effective standardized care.\(^5\) To ensure that the algorithms accurately represented the consensus recommendations, they were reviewed by a group of experts and then revised as per the experts’ comments. Experts invited to review were 1) 2 members of CCGPP’s Research Panel; 2) 5 members of the CCGPP board representing districts of the Congress of Chiropractic State Associations (COCSA); 3) all 59 Delphi panelists who participated in the
consensus projects on acute and chronic spine-related pain. There were a total of 66 invited; 3 Delphi panelists did not have valid e-mail addresses, reducing the total to 63. Of these, responses were provided by 1) 2 of 2 Research Panel members; 2) 3 of 5 COCSA representatives; and 3) 20/56 Delphi panelists, for an overall response rate of 38%.

These algorithms are only a guide, and are not appropriate for all patients and conditions. In particular, it should be noted that they relate specifically to spine-related pain, so are not applicable to other chiropractic treatment objectives. Furthermore, these algorithms are designed to guide the DC in planning the stages of care. They do not dictate the type of treatment procedures provided. These are detailed elsewhere. In general, these may include the following, as per the clinician’s assessment of patient needs: Active care procedures, such as rehabilitation/therapeutic exercises; counseling on activities of daily living, home exercise, pain management, other aspects of self-management and other lifestyle factors; passive care, such as manual therapy including joint adjustment/manipulation, joint mobilization, and soft tissue techniques; physical modalities; acupuncture; bracing, taping and orthoses; and nutritional and nutriceutical support.

These algorithms are designed to assist in the management of spine-related pain. They were designed for the chiropractic profession, but other provider types may also find them useful, since the algorithms do not specifically address the components of the treatment visit.

The algorithms are not designed for the management of other clinical objectives, such as non-painful functional or structural spinal care. They are also not appropriate for wellness care or other types of prevention and/or health promotion. If the algorithm suggests the release or referral of a patient, then the patient has either recovered or the clinical objective is outside the scope of this algorithm. See Figures 1-3 for the algorithms. For detailed information on the consensus projects from which these algorithms were derived, the reader is referred to the original papers.
Figure 1. Algorithm for the Chiropractic Treatment of Spine Related Pain

1 Evaluation components

- History
- Examination
- Outcomes Assessment Tools
  - Pain intensity scales
  - Pain diagrams
  - Pain and disability questionnaires
  - Functional outcomes questionnaires
  - General health questionnaires
  - Psychological profiles
- Imaging if warranted
Figure 2. Acute Care Algorithm

Patient presents with acute spine related pain

- Refer to appropriate provider/facility
  - Yes
  - Is condition outside scope of practice or skill set?
    - No
    - Is co-management required?
      - Yes
      - Refer to appropriate provider/facility
      - Yes or No
    - No
      - Assess for improvement at midpoint of trial using any of the accepted measurement tools (see Fig. 1, Outcomes Assessment Tools)

- Begin therapeutic trial of up to 12 visits within 4 weeks

- Improvement evident at midpoint?
  - Yes
    - Consider
      - Modifying treatment methods
      - Additional diagnostic procedures
      - Referral or co-management
  - No
    - Symptoms resolved?
      - Yes
        - Perform reassessment evaluation
        - Continue on next page
      - No
        - Continue trial

- Refer to appropriate provider/facility
A trial withdrawal may be necessary once a patient reaches maximum therapeutic improvement. This helps to determine if the condition recovery is stable. If the condition has deteriorated after the trial, then chronic or ongoing care may be necessary to maintain function and minimize symptoms. The therapeutic withdrawal can be gradual, where the patient’s care is tapered off. It can also be abrupt,
with the patient instructed to return if the symptoms recur; or the patient can be scheduled for an evaluation at a later date to determine if there is any regression.

Figure 3. Chronic Care Algorithm

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Patient presents with chronic/recurrent spine related pain

Do the benefits of chronic pain management outweigh the risks?

No

Refer to appropriate provider/facility or provide home management Instructions.

Yes

Red flags present? (See red flag list.)

Yes

Refer to appropriate provider/facility.

No or yes but appropriately managed.

This is a scheduled visit for ongoing/recurrent care for a patient expected to progressively deteriorate based on previous treatment withdrawals.

Treat according to ongoing/recurrent care plan (up to 4 visits per month). Re-evaluate every 12 visits at minimum.

This is a symptom flare for a known chronic condition or recurrence of acute condition.

This visit follows a trial withdrawal and there is a recurrence or worsening of symptoms.

Traumatic cause of exacerbation?

Yes

Consider imaging

Mild exacerbation?

Yes

Moderate to severe exacerbations follow Acute Care Algorithm.

No

Continue on next page
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Continued from previous page

Treat for up to 6 visits.

Has patient returned to pre-episode status?

Yes

Release patient; provide home management recommendations if appropriate

No

Consider further diagnostic testing

Red flags present or other conditions outside of scope or skill set?

Yes

Refer to appropriate provider/facility

No

Does condition worsen upon repeated attempts to withdraw care? See rationale for ongoing care?

Yes

Consider ongoing/recurrent care plan of up to 4 visits per month. Re-evaluate at least every 12 visits.

No

Symptoms Improved? Are chronic care goals being met?

Yes

MTB³/Pre-Episode status?

No

Discontinue care and refer to appropriate provider/facility for opinion/management

No

Other treatment options available at this facility?

Yes

Consider ongoing/recurrent care plan of up to 4 visits per month. Re-evaluate at least every 12 visits.

No

Treat for up to 6 visits. Consider multimodal, multidisciplinary care.

MTB³/Pre-Episode status?

Yes
1 Red Flags

- Progressive neurological disorders
- Cauda equina syndrome
- Bone weakening disorders; i.e.; acute spinal fracture, spinal infection, spinal or extra-vertebral bony malignancies
- Tumor
- Articular derangements indicating instability; i.e., active avascular necrosis in weight-bearing joints

2 Documentation of necessity of ongoing care (in addition to standard documentation):*

- Clinically meaningful response to initial treatment
- Maximum therapeutic benefit (MTB)
- Significant residual activity limitations
- Attempts to transition to self-care
- Consideration of alternative treatment approaches
- Factors affecting likelihood that self-care alone will sustain MTI (see Complicating Factors, below)

Complicating factors*

<table>
<thead>
<tr>
<th>Patient characteristics</th>
<th>Injury characteristics</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older age</td>
<td>Severe initial injury</td>
<td>Pre-existing pathology/surgery</td>
</tr>
<tr>
<td>Psychosocial factors</td>
<td>&gt; 3 previous episodes</td>
<td>History of lost time</td>
</tr>
<tr>
<td>Delay treatment &gt;7 days</td>
<td>Severe signs and symptoms</td>
<td>History of prior treatment</td>
</tr>
<tr>
<td>Non-compliance</td>
<td>Number/severity previous exacerbations</td>
<td>Congenital anomalies</td>
</tr>
<tr>
<td>Lifestyle habits</td>
<td>Treatment withdrawal fails to sustain MTI</td>
<td>Symptoms persist despite previous treatment</td>
</tr>
<tr>
<td>Obesity**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of work activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This list is not all-inclusive. Source: Farabaugh RJ, Dehen MD, Hawk C. Management of chronic spine-related conditions: Consensus recommendations of a multidisciplinary panel. *J Manipulative Physiol Ther* 2010;33(7):484-492.


3 MTB=maximum therapeutic benefit
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References


