ACUTE EPISODE OF LOW BACK PAIN BASKET OF CARE SUBCOMMITTEE

Report to:

Minnesota Department of Health

June 22, 2009

BASKET TOPIC DETERMINED BY BASKET OF CARE STEERING COMMITTEE:

Acute Episode of Low Back Pain

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Acute Episode of Low Back Pain

SCOPE STATEMENT:

Comprehensive history and evaluation, followed by conservative treatment for adults ages 18 years and older with symptoms of low back pain that are either acute (0-6 weeks) or chronic with acute exacerbation of a previous episode [1], with or without radiculopathy. Continual assessment of outcome and treatment will occur during a six week period from the time of the comprehensive history and evaluation.

Exceptions to this basket may include Cauda Equina Syndrome, cancer of the spine, infection of the spine, spine or pelvic fracture, major trauma, major progressive neurological deficit, pregnancy, history of recent (six month) spine surgery, and other medical conditions for immediate evaluation/treatment. The cost of any imaging, needle injections, or medications is excluded from this basket.

Rationale for Scope Selection:

The goal of this basket is to provide appropriate care at the appropriate time. The intention of the way this basket has been designed is to prevent the majority of patients from moving to care that may not be appropriate and/or necessary in the acute phase (such as MRIs, injections, surgery). Retrospective analysis/transparency of data after implementation of the basket could provide information into what types of modalities were used and give insight into their effectiveness.

Based on the ICSI Adult Low Back Pain guideline, the subcommittee defines an acute episode as 0-6 weeks, which may include an acute exacerbation of previous low back pain. The Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society was also a key resource but does not specifically state why

they chose to define acute as a 4 week timeframe. From a clinical perspective, there is very little difference in what is completed with patients from 4 weeks to 6 weeks. Six weeks allow for enough time for appropriate interventions and resolution; and allows for administrative functions such as getting patients in, for example.

The New Zealand guidelines recommend managing a new radiculopathy in the absence of red flags similarly in the first six weeks. The scope statement is in line with this decision.

Because initial, appropriate, evidence-based management of acute low back pain can reduce the need for other specialized treatment options, this basket has the potential to improve outcomes, demonstrate cost effectiveness, and make evidence-based care more transparent to consumers. The goal of this basket is to provide appropriate care at the appropriate time. The intention of the way this basket has been designed is to prevent the majority of patients from moving to care that may not be appropriate and/or necessary in the acute phase (such as MRIs, injections, surgery). The cost of any imaging, needle injections, or medications is excluded from this basket.

BASKET OF CARE COMPONENTS:

Basket components were identified based on current literature, existing guidelines, current standards of practice and in some cases evidence informed consensus.

Screening/Assessment	**Frequency**
Screening to determine urgent or emergent	At least once in the 6 week period
General assessment [2] to determine possible exceptions to the basket such as severe/major progressive neurological symptoms; evaluation of start of symptoms; thorough history; functional assessment; consideration of psychosocial risk; basic neurological exam, and pain rating scale.	At least once in the 6 week period
Depression screening using PHQ-2 tool [3]	At least once in the 6 week period
Assessment of biomechanical risk related to daily activities and work.	At least once in the 6 week period
Treatment and Management	**Frequency**
Plan of Care [4]	Following screening and assessment
Education to include prevention, lifestyle, fear-avoidance, advice to maintain maximum tolerable physical activity, prognosis and natural history of disease, and treatment expectations.	At beginning of diagnosis and ongoing at each patient encounter
Lifestyle changes and behavioral modifications to encourage healthy lifestyle, fitness and weight loss as needed.	Ongoing at each patient encounter
Manipulation (including assessment) by qualified provider	Per clinical indications [5]

Other non-invasive modalities supported by the scientific literature: Exercise, massage, acupuncture, yoga, cognitive behavioral therapy, superficial heat.	Per clinical indications [6]
Reassessment and reinforcement of activity recommendations.	At each patient encounter
Lumbar stabilization	Per clinical indications [7]
Medication management: [8] Non-opioid analgesics	As needed [9]
Medication management: [8] Judicious use of opioid medication for limited period of time (<2 weeks).	Only as appropriate for patients not responding [10]
Outcome Assessment with a validated tool	**Frequency**
Plan of Care follow up for maintenance or referral	At conclusion of treatment period

Notes:

1. **Scope**

   Based on the ICSI guideline, the subcommittee defines an acute episode as 0-6 weeks, which may include an acute exacerbation of previous low back pain. From a clinical perspective, there is very little difference in what is completed with patients from 4 weeks to 6 weeks. Six weeks allow for enough time for appropriate interventions and resolution; and allows for administrative functions such as getting patients in, for example.

2. **General Assessment**

   The general assessment is to identify patients who require immediate surgical evaluation and those whose symptoms suggest a more serious underlying condition such as malignancy or infection, basic neurological exam allows the detection of most clinically important radiculopathy related to lumbar disc herniation, a focused history can help determine the risk for chronic disabling back pain.

3. **PHQ-2**

   Kroenke, 2003 studied six thousand patients in eight primary care clinics and seven obstetrics-gynecology clinics and reports a sensitivity of 83% and a specificity of 92%. A 2007 meta-analysis by Gilbody, et.al., concluded the two-question screen is effective with a broad population in primary care.

4. **Plan of Care**

   A Plan of Care needs to be established with the patient and provided to the patient; and communicated to other providers involved in the patient's care for proper coordination of care.

5. **Manipulation Frequency**

   The frequency of manipulation should be tailored to the individual and based on patient response. There is some evidence to support use in 0-6 week period.

6. **Other Non-Invasive Modalities Frequency**

   There is some evidence to initiate exercise, massage, acupuncture, yoga, and cognitive behavioral therapy after 4 weeks. There is evidence to initiate superficial heat between 0-6 weeks.

7. **Lumbar Stabilization Frequency**

   There is some evidence to initiate lumbar stabilization after 4 weeks.

8. **Medication Management**

   Medication management includes determining appropriateness for and managing a patient's treatment with the medication.

9. **Non-Opioid Analgesics Medication Management**

   Evidence exists to support use of NSAID's in the 0-6 week period and the purpose of medications is to control pain. Shared decision-making presents an ideal opportunity for implementing this component and is highly recommended by the subcommittee.

10. **Opioid Medication Management**

    Opioid analgesics are rarely indicated in the treatment of acute low back pain. There is insufficient evidence to support opioid use in early treatment. If used, it should be for only short-term intervention (<2 weeks) and accompanied by a comprehensive treatment plan.

Components considered but not included:

- Oral steroids – acknowledged as common practice but benefit in the first six weeks has not been studied.
- Active modalities – acknowledged as common practice but benefit in the first six weeks has not been studied.

Components in initial basket that were deleted or modified for final draft:

- Rationale for the purpose of the general assessment was expanded.
- Terms "yellow flags" and "red flags" were replaced with descriptions and specific examples for clarity.
- Clarified that assessment of biomechanical risk is related to daily activities and work.
- Added a Plan of Care component following screening/assessment.
- Only included non-invasive modalities supported by the scientific literature.
- Added a component for reassessment and reinforcement of activity recommendations.

OPPORTUNITIES FOR INNOVATION INCLUDE:

- Determining how health care homes may complement this basket of care, perhaps by providing compensation for coordination of care between qualified providers involved in care for low back pain.
- Ensure basket language is understandable to the public.
- Use of shared decision-making to create a Plan of Care that is easily accessible to the patient and communicated between other provider's involved in patient's care.
- Use of shared decision-making for treatment options that are patient-specific and based on clinical indications such as manipulation and other non-invasive modalities, lumbar stabilization, and medications.
- Effectively deliver the education and behavioral change components with consideration to who, where, what, how.
- Identify an appropriate validated outcome tool to be used for measurement with this basket such as the DIRE Tool, Oswestry Disability Index, SF-20, etc.
- Address what happens if a patient in the basket requires services outside of the basket and/or develops circumstances that remove them from or makes them ineligible for the basket. For example, making the use of modalities outside of the basket makes the basket void. Measurement could then include all patients who began a basket but fell out compared to those who completed the basket.
- Develop a method to measure cost savings.
- Address potential unintended consequences such as: If a cost of a prescription is not included in the basket, providers may not be inclined to prescribe.
- Develop another low back pain basket that focuses on the next level of treatment including imaging, injections, and surgery.

ADDITIONAL CONSIDERATIONS:

- Oral steroids and active modalities are acknowledged as common practice, but were not included in the basket because their benefit in the first six weeks has not been studied.

JUNE 4, 2009 STEERING COMMITTEE REVIEW AND COMMENT:

- Steering Committee recommended Administrative/Operations work group consider how to operationalize this when it is not a "minimum standard" set, but several treatment options exist with fairly equal evidence.

SUPPORTING RATIONALE AND REFERENCES:

These care components are supported by the following evidence and guidelines:

Burton AK, Waddell G, Tillotson KM, Summerton N. Information and advice to patients with back pain can have a positive effect. A randomized controlled trial of a novel educational booklet in primary care. Spine. 1999 Dec 1;24(23):2484-91.

Chou, et. al. Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society. Ann Int Med 2007;147:478-491.

Gilbody S, Richards D, Brealey S, Hewitt C. Screening for depression in medical settings with the Patient Health Questionnaire (PHQ): a diagnostic meta-analysis. J Gen Intern Med. 2007 Nov;22(11):1596-602.

Institute for Clinical Systems Improvement (ICSI). Adult Low Back Pain guideline, November 2008.

Kendall, N A S, Linton, S J & Main, C J (1997). Guide to Assessing Psycho-social Yellow Flags in Acute Low Back Pain: Risk Factors for Long-Term Disability and Work Loss. Accident Compensation Corporation and the New Zealand Guidelines Group, Wellington, New Zealand. (Oct, 2004 Edition).

Kroenke K, Spitzer RL, Williams JB.. The Patient Health Questionnaire-2: validity of a two-item depression screener. Med Care. 2003 Nov;41(11):1284-92.

Van Tulder M, et al. Chapter 3. European guidelines for the management of acute nonspecific low back pain in primary care. Eur Spine J 2006 15 (Suppl. 2): S169–S191.