

Treatment of Fibromyalgia in Adults

Fibromyalgia (FM) is an idiopathic syndrome characterized by generalized fatigue and muscle pain and tenderness that is associated with a significant reduction in quality of life.¹ It is estimated that 2% of the U.S. population is affected with women age 20-50 reporting symptoms most frequently.² Although diagnostic criteria were developed by the American College of Rheumatology (ACR) in 1990, fibromyalgia is still considered a diagnosis of exclusion by many practitioners. The ACR Criteria for Classification of Fibromyalgia includes the following: 1) widespread pain for at least three months (both sides of the body, above and below the waist, and axial skeleton involvement) and 2) pain on palpation in 11 of 18 specific tender points.³

Key Points

- ◆ Diagnostic criteria exist for fibromyalgia, and the condition can be identified based on specific clinical characteristics.⁴
- ◆ Fibromyalgia sufferers often have multiple comorbidities including depression, anxiety, headaches, irritable bowel, and sleep disorders.
- ◆ Non-pharmacological treatments, including low-impact exercise, cognitive behavioral therapy, and patient education should be considered the cornerstone of treatment.
- ◆ Among pharmacologic treatments, amitriptyline (Elavil) and cyclobenzaprine (Flexeril) have the best supportive evidence from controlled and uncontrolled clinical trials.
- ◆ Pregabalin (Lyrica) is the first FDA-approved treatment for fibromyalgia, but should not be considered first-line, based on available efficacy data and cost.

Many FM patients often have comorbid conditions that can make diagnosis and treatment problematic. Such conditions include sleep disorders, anxiety, depression, headaches, cognitive difficulties, paresthesias, and irritable bowel syndrome.¹

Treatment of FM is primarily symptomatic, with non-pharmacologic modalities often demonstrating the best efficacy. Low-impact regular exercise, cognitive-behavioral therapy, and participation in support groups have been shown to be helpful for many patients.⁴ These treatments should be considered the cornerstone of therapy and ought to be utilized even in patients for whom drug therapy is prescribed.⁵

Pharmacologic treatments include antidepressants and agents often used for neuropathic pain. Drugs with the most supporting clinical evidence include amitriptyline (Elavil) and the structurally-related muscle relaxant, cyclobenzaprine (Flexeril).⁵ Other antidepressants, such as selective serotonin reuptake inhibitors (fluoxetine, sertraline) as well as serotonin and norepinephrine reuptake inhibitors (venlafaxine, duloxetine) may also be effective.⁵ Analgesics such as tramadol (Ultram) or opioids (hydrocodone, oxycodone) with or without acetaminophen may be necessary, but should be viewed as last resorts.⁵ NSAIDs are not generally beneficial as FM is not thought to have an inflammatory component.⁵

*Idaho Drug Utilization Review Program
Educational Leaflet for Physicians, Pharmacists and other Healthcare Practitioners*

Gabapentin (Neurontin) has a long history of use in the management of a variety of neuropathic pain states and has some supporting data for FM.⁶ Although the related agent, pregabalin (Lyrica) is the first drug approved by the FDA for the management of FM, it is a schedule V controlled substance,⁷ is more expensive than other options (including generic gabapentin), and has less clinical evidence than other pharmacologic treatments.

Pharmacologic Treatments for the Management of Fibromyalgia

Evidence for Efficacy	Drug Class/Drug	Dosing Range for Fibromyalgia	Average Monthly Cost*
Strong	Tricyclic antidepressant (TCA) Amitriptyline (Elavil)	10-50 mg qhs	\$7.99 - 11.99
	Skeletal muscle relaxant Cyclobenzaprine (Flexeril)	10-40 mg daily (qhs or divided doses)	\$13.99 - 25.30
Moderate	SSRIs Fluoxetine (Prozac)	20-80 mg qd	\$14.99 - 35.99
	SNRIs Duloxetine (Cymbalta)	60-120 mg daily	\$123.99 - 247.99
	Non-opioid analgesic Tramadol (Ultram)	200-300 mg daily	\$63.96 - 95.94
	Anticonvulsants Pregabalin (Lyrica) Gabapentin (Neurontin)	300-450 mg daily in divided doses 1,200-2,400 mg daily in divided doses	\$69.54 - 139.08 \$72.99 - 92.99

*Approximate cost per www.drugstore.com. Accessed April 2008.

References

- ¹ American College of Rheumatology. Patient education for fibromyalgia. http://www.rheumatology.org/public/factsheets/fibromya_new.asp#1. (Accessed March 27, 2007).
- ² Wolfe F, Ross K, Anderson J, Russell IJ, Hebert L. The prevalence and characteristics of fibromyalgia in the general population. *Arthritis Rheum* 1995;38:19-28.
- ³ Wolfe F, Smythe HA, Yunus MB, Bennett RM, Bombardier C, Goldenberg DL, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia. Report of the Multicenter Criteria Committee. *Arthritis Rheum* 1990;33:160-72.
- ⁴ Chakrabarty S, Zoorob R. Fibromyalgia. *Am Fam Physician* 2007;76:247-54.
- ⁵ Buckhardt CS, Goldenberg D, Crofford L, et al. Guideline for management of fibromyalgia syndrome pain in adults and children. American Pain Society, 2005. http://guidelines.gov/summary/summary.aspx?doc_id=7298&nbr=004342&string=fibromyalgia. (Accessed March 27, 2008).
- ⁶ Arnold LM, Goldenberg DL, Stanford SB, et al. Gabapentin in the treatment of fibromyalgia: a randomized, double-blind, placebo-controlled, multicenter trial. *Arthritis Rheum* 2007 Apr;56(4):1336-44.
- ⁷ Product information for *Lyrica*. Pfizer Inc, New York, NY 10017. June 2007.

(Available online at <http://idahodur.isu.edu>, information current as of April 2008)