

Ask The Pharmacist: Understanding Skeletal Muscle Relaxants in Workers' Compensation

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What should I know about skeletal muscle relaxants in the treatment of injuries?

Skeletal muscle relaxants are a leading category of prescribed medications in workers' compensation and elsewhere in health care, often prescribed for elderly patients and as "adjuvants" for treatment of chronic pain in patients with overlapping medical conditions and multiple medications.

These are a challenging group of medications to characterize because "muscle relaxant" is a "functional" description of a group of structurally dissimilar substances with differing pharmacologic and side effect profiles. They are used to treat two conditions that contribute to discomfort in workplace injuries—muscle spasticity and spasm. Spasticity is described as increased motor tone and stiffness. Spasms are involuntary localized muscle contractions that arise from acute trauma or muscle strain. Fibromyalgia, low back or neck pain are conditions commonly associated with muscle spasm. While conditions such as multiple sclerosis, spinal cord and traumatic brain injury are more frequently associated with muscle spasticity.

Antispasticity medications act to reduce muscle tone by two means, centrally in the brain or locally, by direct effect on skeletal muscles. Centrally acting agents include tizanidine, gabapentinoids (Lyrica®, Neurontin®, gabapentin, etc.), baclofen, benzodiazepines and riluzole. Direct-acting medications include dantrolene and botulinum toxin.

Many antispasm medications are <u>U.S. Food and Drug Administration</u> (FDA) approved for pain associated with acute musculoskeletal conditions and for muscle spasm. However, their use is generally limited to short treatment periods, as evidence for safety and effectiveness for longer-term use is lacking. Cyclobenzaprine (Flexeril®), methocarbamol (Robaxin®), carisoprodol (Soma®), metaxolone and chlorzoxazone (Parafon Forte®) are examples of these. Many are known to cause central nervous system depression and related sedation and are an additive overdose risk when prescribed in combination with opioid pain medications. Some also

appear on the <u>American Geriatrics Society's Beers List</u> of medications that are inappropriate for use in elderly patients.

The <u>Official Disability Guidelines</u> offer a conditional recommendation for the use of less sedating muscle relaxants as a second line option for two weeks or less in lower back pain and acute exacerbations of chronic back pain. "In most lower back pain cases, they show no benefit beyond <u>non-steroidal anti-inflammatory drugs</u> (NSAIDs) in pain and overall improvement. Also, there's no additional benefit shown in combination with NSAIDs. Efficacy appears to diminish over time and prolonged use of some medications in this class may lead to dependence."

The use of muscle relaxant medications may carry substantial risks for drug interactions and side effects. Their use alone, or in combination with other medicines in patients who are elderly, taking other medications or have multiple medical conditions makes careful selection of these agents and vigilant monitoring of their use critical to safe, effective care.

This information is meant to serve as a general overview, and any specific questions should be more fully reviewed with your health care professional such as the prescribing doctor or dispensing pharmacist.

Do you have a workers' compensation or auto related pharmacy question? Send us an email at AskThePharmacist@enlyte.com.

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