Workers' Comp

Ask The Pharmacist: Steroid Medications in Workers' Compensation

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What are the various kinds of steroid medications?

In workers' comp, steroid medications have often played a role in the management of pain related conditions and joint injuries, either alone or incorporated in "trigger point" injections with an anesthetic medication like lidocaine. They are also used to reduce inflammation in the management of certain lung injuries.

Steroids are substances that are produced by glands in the human body from a common precursor called cholesterol. In general, they can be classified as either sex steroids or corticosteroids (glucocorticoids and mineralocorticoids). Structurally and chemically, they bear resemblances to one another. However, their similarities are limited in scope, as they play diverse roles in regulating and influencing various bodily functions and physiological processes.

Sex steroids, like testosterone, estrogen and progestin, are produced in the testis, ovaries and adrenal glands. Anabolic steroid medications are synthetic relatives of testosterone and are used (and misused) to increase lean muscle mass and enhance athletic performance. Hair growth, voice deepening, and a range of other male characteristics are also noted. The female sex steroids (estrogen and progestin) have far reaching effects on the cardiovascular system, brain, skin, hair, bone, reproductive cycle and the development of secondary sex characteristics.

Corticosteroid medications are synthetic relatives of naturally occurring adrenal hormones (like cortisol) that regulate metabolism, immune response, blood volume and pressure. They are readily available as brand and generic versions in injectable, topical, inhaled, and oral dosage forms. Synthetic corticosteroids are also available in a range of potencies, from low to ultra-high, determined by the degree to which they inhibit inflammation and related to their potential for side effects.

Corticosteroids are further characterized as either glucocorticoids or mineralocorticoids. Mineralocorticoids, like aldosterone, regulate blood volume and pressure. Glucocorticoids (like prednisone, methylprednisolone and dexamethasone) regulate the activation of immune cells.

Glucocorticoids are useful for reducing inflammation, treating swelling, itching, redness and allergic reactions, as well as for downregulating a hyper-active immune system. Examples of immune hyperactivity would include lung and airway hyper-reactivity, rheumatoid arthritis, psoriasis, ulcerative colitis and autoimmune reactions. An autoimmune reaction occurs when an individual's normal immune response is exaggerated and prolonged, doing damage to body structures and organs.

As useful and important as they are, steroids have serious side effects, often related to the duration of use, including blood sugar increases, osteoporosis, immune suppression and delayed wound healing, fat distribution abnormalities, and mood changes. Longer treatment courses (more than a few weeks) require a gradual tapering of the dose to enable an individual's cortisol cycle to readjust.

The Official Disability Guidelines offer conditional recommendations for the use of corticosteroid injections in a selected number of joint pain conditions and for inhaled and intranasal corticosteroid treatments for asthma and upper airway coughs.

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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