

## DEPARTMENTS

*Letters to the Editor***Hypogonadism in Men Treated With Chronic Opioids**

In the March 2008 supplement issue, the article by Gallagher and Rosenthal<sup>1</sup> on chronic pain and opiates is an excellent and concise summary of the key concepts and definitions on use of opioids in chronic pain management, including abuse and addiction. However, the section on side effects of opioids could have mentioned a common but often unrecognized side effect—the high likelihood of hypogonadism in men treated with chronic opioids.

In my chronic pain practice, perhaps as much as 80% of male patients on opioids are also on testosterone replacement. Subnormal testosterone levels increase the risk of osteopenia or osteoporosis, decreased muscle strength, and depression, in addition to reduced sexual functioning. It is advisable to obtain serum testosterone levels on all male patients who are on chronic opioids and consider testosterone replacement unless there are contraindications.

**Jennifer Schneider, MD, PhD**  
Arizona Community Physicians  
Tucson, AZ  
[jennifer@jenniferschneider.com](mailto:jennifer@jenniferschneider.com)

**Disclosure:** No commercial party having a direct financial interest in the results of the research supporting this article has or will confer a benefit on the authors or on any organization with which the authors are associated.

**Reference**

- Gallagher RM, Rosenthal LJ. Chronic pain and opiates: balancing pain control and risks in long-term opioid treatment. *Arch Phys Med Rehabil* 2008;89(3 Suppl 1):S77-82.

doi:10.1016/j.apmr.2008.05.001

**The authors respond**

We thank Dr. Schneider for pointing out this important omission in our review.<sup>1</sup> We agree that hypogonadism is a common, and often unrecognized, side effect of long-term opioid use for chronic pain. We also treat this successfully with testosterone replacement. Schneider also raises another issue. One also wonders whether in patients with chronic pain, hypogonadism is mistaken for or worsens depression, because both are associated with similar symptoms such as depressed mood, loss of energy, and loss of libido. Recent studies suggest higher rates of depression in males with low testosterone<sup>2</sup> and higher mortality rates.<sup>3</sup> Long-term opioid use is more likely to

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0003-9993/08/8907-00389\$34.00/0  
doi:10.1016/j.apmr.2008.05.009

be prescribed for the more severely disabling cases of chronic pain, who are also more likely to suffer a secondary depression. Because chronic pain is common, opioids are commonly used for treating chronic pain, and depression frequently accompanies both hypogonadism and chronic pain, studies to examine these relationships are indicated. In the meantime, as Schneider suggests, clinicians should consider hypogonadism in the differential diagnosis of depressed mood in patients with chronic pain taking regular opioid analgesics, particularly in higher dosing ranges.

**Rollin M. Gallagher, MD, MPH**  
University of Pennsylvania School of Medicine  
Philadelphia VA Medical Center  
Philadelphia, PA

**Lisa Rosenthal, MD**  
Department of Psychiatry  
University of Pennsylvania  
Philadelphia, PA

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- Shores MM, Matsumoto AM, Sloan KL, Kivlahan DR. Low serum testosterone and mortality in male veterans. *Arch Intern Med* 2006;166:1660-5.

doi:10.1016/j.apmr.2008.05.009

**The Psychometric Properties of the Neck Disability Index**

The findings of Cleland et al<sup>1</sup> with respect to the psychometric properties of the Neck Disability Index (NDI) differ greatly with previously published work. These anomalous findings require explication beyond what is offered by Cleland.

With respect to test-retest reliability, 6 studies<sup>2-7</sup> published up to a year before this 2008 Cleland study reported on this aspect of the NDI, with values ranging from .89 to .93. Cleland's finding of .50 varies considerably from the consensus of these reports. The definition of test-retest reliability is the degree to which an assessment yields similar results from 1 testing occasion to another in the absence of any important intervening factors, including treatment(s). Investigating test-retest reliability requires an a priori assumption that the 2 testing occasions are similar in all these (and any other) respects with the exception of the passage of some time interval. Cleland's use of a "stable group" after 1 treatment violates this assumption. A test-retest investigation cannot be undertaken when subjects for the test-retest reliability analysis were selected after the fact, based on their clinical status. Cleland admits that subjects scoring - 3 to +3 on the global rating of