[redacted]

ACOEM Medical Review Officer MRO Update

AMERICAN COLLEGE OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

April 2004

MRO Survey Shows Demand for Distance Learning

Medical review officers (MROs) want distance learning options, according to a survey conducted by the Medical Review Officer Certification Council (MROCC). The survey asked, "Is there anything you feel MROCC could to do continue developing the MRO arena?" Of the 46 people who responded to this open-ended question, 19 said they want on-line continuing medical education (CME) for MROs and/or on-line certification. The survey separately asked respondents if they would complete distance learning MRO CME programs if they were available, and 80 percent of the 147 people who answered this question said "yes."

MROCC offers on-line certification through Prometric's network of local test centers. However, few MROs have tried this. Instead, more than 95 percent of people who take the MROCC exam travel to take it, usually back-to-back with an MRO course. The survey highlighted a complaint often heard among course attendees: The courses seem costly and inconvenient. Last year, MROCC and the American College of Occupational and Environmental Medicine committed to the development of a distance learning program for MROs. This program is about to be released (see the following article), well before the August 1, 2004, compliance deadline of the Department of Transportation (DOT) procedures.

Interestingly, about one quarter of the people who completed the survey indicated that they do not currently perform MRO functions. More than three quarters of the respondents said they also perform DOT physicals. About 22 percent said they serve as substance abuse professionals.

The MROCC survey was posted at **www.mrocc.org** from January through March 2004. MROCC has since closed and removed the survey from its web site. Visitors to the site were invited to anonymously complete the survey. As of March 29, 2004, 239 surveys were completed. People could skip individual questions; thus, while 239 people took the survey, there were fewer than 239 responses to each question. The complete data are as follows:

MRO Demographics

1. What is your current mode of practice?

	Percent response (N=231)
Private practice solo MRO	44.2%
Corporate in-house MRO	32.5%
Private practice with multiple MROs	23.4%

2. How long have you been a medical review officer?

	Percent response (N=233)
Less than 1 year	20.2%
1 - 2 years	12.0%
3 - 5 years	24.9%
6 - 10 years	19.7%
More than 10 years	23.2%

Continued on next page

MRO Survey Shows Demand for Distance Learning . . . 1

ACOEM Announces Distance Learning CME Program for MROs. 3

Regulatory Update – Testing Program for Nuclear Weapons Handlers 3

MRO FORUM

THC Positive from Hemp Oil Skin Products?. 4

Letter to the Editor – Hair Testing 5

Train Engineer Had Marijuana in System . . . 5

Surface Testing for Drugs . . 6

COURTROOM UPDATE

Arkansas – Injury Caused By Runaway Truck, Not Pot Use 6

Arkansas – Positive Test Establishes Impairment 6

Florida – MRO's Errors Invalidate Test 7

Illinois – MRO Negligence Claim Belongs in State Court 7

Louisiana – Post-accident Test Used in Criminal Trial . . 7

Ohio – Employer's Concern Over Worker with History of Alcohol Abuse Was Justified 8

MRO Forum

MRO Forum presents questions of general interest from readers. Questions may be addressed to *MRO Update*, c/o Marianne Dreger, MA, ACOEM Director of Communications, 1114 N. Arlington Heights Rd., Arlington Heights, IL 60004; e-mail: mdreger@acoem.org.

THC Positive from Hemp Oil Skin Products?

***Q** I am reviewing a regulated drug test result that is positive for THC, the marijuana metabolite. The donor claims it is positive because he puts hemp oil on his skin at tanning salons, repeatedly and for prolonged periods. Is this an acceptable explanation? Can use of hemp oil on the skin cause a THC-positive drug test result?*

J. Michael Panuska, MD, MPH
Medical Director, Occupational Health Center
Provena St. Mary's Hospital, Bourbonnais, Ill.

A Can hemp oil on the skin cause a positive drug test result? In 2001, hemp industry representatives commissioned Dr. Gero Leson, a consultant from Berkeley Calif., to address this issue. There were no human experimental data that directly tested this. So, Dr. Leson calculated what would likely occur from use of hemp oil skin products based on concentrations of THC in hemp oil products, estimated transfer rates of THC through skin, and other variables. He concluded that even the most excessive use of hemp oil skin products would not produce a positive drug test.[1] The "worst-case" scenario presented in his study assumed the person had compromised skin, kept hemp oil products on his entire body for 24 hours, and used hemp products with a 10 ppm THC content. (By comparison, hemp oil sold in the U.S. generally has levels of THC well below 5 ppm.) In this worst-case scenario, the calculated THC uptake was 11 µg/day. With more realistic use of hemp oil skin products, the calculated THC uptake was less than 1 µg/day. By comparison, much higher amounts of THC, at least in the 400s µg/day, are needed to generate positive urine drug test results using federal cutoffs.[2,3] Dr. Leson concluded that hemp oil skin products cannot cause positive drug test results, not even after prolonged use.

There have been a few court cases where hemp oil ingestion, hemp oil skin products, or both have been cited as the cause of THC-positive drug tests. In the cases of which I am aware, the courts have not accepted hemp oil skin products as a cause of positive drug test results.

In regulated testing, use of dronabinol (Marinol®) or (for just a few people) court-authorized use of marijuana are the only acceptable explanations for THC-positive drug test results. The federal drug testing rules and guidance direct medical review officers (MROs) to verify results as positive when donors claim their results are positive from hemp oil use.[4,5] Hemp oil with a higher THC content (more than 20 ppm) can, if ingested in sufficient quantity, cause a THC-positive drug test. High-THC content hemp oil products are not supposed to be available for sale in the United States. If the MRO really wants to explore the possibility of whether a donor's use of hemp oil could explain a positive result, the MRO could start by asking where the donor got the hemp oil, what brand he used, how much he took, by what route, and for how long.

In a few years, dronabinol patches may be available for delivery of prescribed THC. The researchers who are developing these patches believe it is possible to transfer THC through the skin in significant doses under the right conditions. By contrast, commercial hemp oil skin products contain minuscule THC concentrations, and use of these products does not create the right conditions to cause THC-positive urine drug test results.

Robert Swotinsky, MD
Editor, MRO Update

---

[1] Pless P, Leson G. Assessing the impact of THC uptake from hemp oil cosmetics on workplace drug testing. Leson Environmental Consulting. Berkeley, CA. March 2001.

[2] Leson G, Pless P, Grotenhermen F, Kalant H, ElSohly MA. Evaluating the impact of hemp food consumption on workplace drug tests. *J Anal Toxicol.* 2001; 25(8):691-8.

[3] Gustafson RA, Levine B, Stout PR, et al. Urinary cannabinoid detection times after controlled oral administration of delta-9-tetrahydrocannabinol to humans. *Clin Chem.* 2003;49(7):1114-24.

[4] Vogl WF, Bush DM. *Medical Review Officer Manual for Federal Workplace Drug Testing Programs.* DHHS Publication No. (SMA) 97-3164. Rockville, MD: Department of Health and Human Services, 1997.

[5] 49 CFR §40.151(f).