



# Information About the MROCC Examination

MROCC Competency Statements, Topics on Examination and References

## **TOXICOLOGY, PHARMACOLOGY AND LABORATORY ISSUES (Approximately 20% of the exam items are within this competency area)**

### COMPETENCY STATEMENT

The MRO must be knowledgeable of the toxicology & pharmacology of drugs of abuse. While the MRO is not a laboratory director, the MRO must know what goes on in the laboratory and how quality is assured. Knowledge in these areas will enable the MRO to:

- recognize and describe the pharmaco/toxicokinetics of drugs of abuse (both regulated and non-DOT regulated drugs) and alcohol.
- recognize both trade names and generic names for substances that are likely to appear in a DOT or non-DOT drug screen, interfere with a drug test, or be presented to the MRO as a donor explanation for a positive drug test.
- recognize the appropriate analytical methods for drug and alcohol screening and confirmation, and properly interpret results, with consideration of limits of detection, sensitivity, specificity, limitations, interferences, cost and availability.
- advise clients regarding the use of various matrices and technologies for drug testing.
- provide consultation to clients regarding testing for substances of abuse including both regulated and non-DOT regulated drugs, including prescription substances, non-prescription substances, cotinine (nicotine) and alcohol.
- evaluate drug and alcohol testing services.
- describe laboratory QA, QC, and certification requirements to an employer or other interested party.
- efficiently transmit and receive drug test data and information while maintaining donor confidentiality.
- evaluate laboratory findings relating to specimen validity.
- recognize the basic types and mechanisms of action of performance enhancing drugs

### TOPICS ON EXAMINATION

- Drugs of abuse
- Alcohol
- Analytical methods, new technologies
- Laboratory quality control and COC
- Laboratory certification
- Laboratory communication with the MRO
- Alcohol testing (analytical issues)
- Specimen validity testing

### REFERENCES

- Swotinsky RB, Smith DR, The Medical Review Officer's Manual. Beverly Farms, MA, OEM Press, 5th ed. 2015, pages 91-135; 195-218
- Peterson KW, American College of Occupational and Environmental Medicine, Drug and Alcohol Testing Medical Review Officer Course Syllabus and Resource Manual, updated annually. Sections on toxicology, pharmacology and laboratory issues.

- Ropero-Miller JD, Goldberger BA, et al, Handbook of Workplace Drug Testing, AACCC Press, 2nd ed. 2008.
- Garriott JC (ed), Medicolegal Aspects of Alcohol, Lawyers & Judges Publishing Company, Inc., 6th edition, 2014.

#### ADDITIONAL SUGGESTED REFERENCES & ON LINE RESOURCES

- Ferguson J, The Medical Review Officer Team Manual. Beverly Farms, MA, OEM Press, 2nd ed., 2013.
- Swotinsky RB, ed. MRO Update. American College of Occupational and Environmental Medicine (newsletter).
- MRO List Server (moderated by Dr. Karl Auerbach) – to subscribe, send an email to [Karl.Auerbach@urmc.rochester.edu](mailto:Karl.Auerbach@urmc.rochester.edu) with the subject "SUBSCRIBE MRO"
- MRO Testing Q&A, an on-line discussion forum about workplace drug and alcohol testing moderated by Robert Swotinsky, <http://www.occ-doc.net/forum/index.php>
- U. S. Department of Transportation, Office of Drug and Alcohol Policy and Compliance: <http://www.dot.gov/ost/dapc>
- SAMHSA's Direct Division of Workplace Programs/CSAP link: <http://www.samhsa.gov/workplace/>
- GPO Gate – Free source of Federal Register documents: [www.gpo.gov/fdsys](http://www.gpo.gov/fdsys)
- Office of National Drug Control Policy [www.ondcp.gov/about/index.html](http://www.ondcp.gov/about/index.html)