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
- 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.

ADDITIONAL SUGGESTED REFERENCES & ON LINE RESOURCES
• 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 with the subject "SUBSCRIBE MRO"
• 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
• Office of National Drug Control Policy www.ondcp.gov/about/index.html