

Definitive Drug Testing (LC-MS/MS)

Definitive drug testing is a type of testing that identifies a specific drug or metabolite by use of a specific test, such as mass spectrometry (e.g., gas chromatography with mass spectrometry [GC-MS] or liquid chromatography with tandem-mass spectrometry [LC-MS/MS]). This type of testing is in contrast to a “screening test,” which is class-based immunoassay drug testing.

The New York State Department of Health will make a determination whether or not to expand Medicaid coverage of definitive drug testing.

Dossier sources of evidence already submitted:

The following evidence was recently submitted to the Department:

1. Clancy Z, O’Connell K, Cuoto J. The use of urine drug monitoring in chronic opioid therapy: an analysis of current clinician behavior. *J Opioid Manag*, 2013 Mar-Apr; 9(2):121-7.
2. Dixon B, Floyd D, and Desgupta A. (2014). Limitations of EMIT benzodiazepine immunoassay for monitoring compliance of patients with benzodiazepine therapy even after hydrolyzing glucuronide metabolites in urine to increase cross-reactivity: Comparison of immunoassay results with LC/MS/MS values. *Therapeutic Drug Monitoring*. Publish Ahead of Print. DOI: 10.1097/FTD.000000000000117
3. Kirsh KL, Heit HA, Huskey A, Strickland J, Egan K, Passik SD. (2015). Trends in drug use from urine drug testing of addiction treatment clients. *J Opioid Manag*. 2015 Jan-Feb; 11(1): 61-8.
4. Laffer AB, Murphy R, Winegarden W, Pesce A, Mikel C, West C, Egan-City K, Strickland J, and Christie J. (2011). An Economic Analysis of the Costs and Benefits Associated with Regular Urine Drug Testing for Chronic Pain Patients in the United States. Millennium Laboratories, San Diego, CA.
5. McCarberg B. (2011b). Chronic pain: Reducing costs through early implementation of adherence testing. *Post Graduate Medicine*. 2011; 123(6): 132-9.
6. Melanson et al. (2013). Optimizing urine drug testing for monitoring medication compliance in pain management. *Pain Medicine*. 14: 1813-1820.
7. Michna E, Jamison RN, Pham LD, et al. Urine toxicology screening among chronic pain patients on opioid therapy: frequency and predictability of abnormal findings. *Clin J Pain*. 2007; 23: 173-179.
8. Mueller B, Foster M (2014). Additional clinical oversight of urine drug testing of injured workers on chronic opioid therapy reduces utilization of high risk medications and risk factors associated with misuse. *Proceedings of the Academy of Managed Care Pharmacy 26th Annual Meeting*. Tampa, FL.
9. Pesce A, Rosenthal M, West R, West C, Crews B, Mikel C, Almazan P, Latyshev S (2010). An evaluation of the diagnostic accuracy of liquid chromatography-tandem mass spectrometry versus immunoassay drug testing in pain patients. *Pain Physician*. 13: 278-281.
10. Pesce A, West C, Rosenthal M, Mikel C, West R, Crews B, Almazan P, Latyshev S, Horn P. (2011a). Illicit drug use in the pain patient population decreases with continued drug testing. *Pain Physician*. 14: 189-193.
11. Pesce A, West C, West R, Crews B, Mikel C, Rosenthal M, Almazan P, Latyshev S. (2011b). Determination of medication cutoff values in a pain patient population. *J Opioid Management*. 7(2): 117-122.

12. Rzetelny A, Zeller B, Miller N, Ruehle M, City K, Kirsh K, Passik S (2014). Clinical drug testing in substance-use treatment: A qualitative study of counselors' use of definitive drug testing results in their work with clients. Poster presented at the American Academy Addiction Psychiatry annual meeting. December 2014, Ft. Lauderdale, FL.
13. Rzetelny A, Zeller B, Miller N, City K, Kirsh K, Passik S. (2015). Counselors' clinical use of definitive drug testing in their work with substance-use clients: A qualitative study. *International Journal of Mental Health and Addiction*. (In press: IJMH-D-14-00183R1)
14. West R, Pesce A, Crews B, Mikel C, Rosenthal M, Almazan P, Latyshev S, West C. (2011). Determination of illicit drug cutoff values in a pain patient population. *Clinica Chimica Acta*. 412: 1589-1593.
15. Yee D, Hughes M, Guo A, Barakat N, Tse S, Ma J, Best B, Atayee R. (2014). Observation of improved adherence with frequent urine drug testing in patient with pain. *J Opioid Management*. 10(2): 111-118.