Urine Testing in Buprenorphine Treatment

Description:
Information on the logistics of urine testing, including the timing of testing, frequency, location, and test type.

Being able to accurately gauge the current drug use by patients enrolled in a substance abuse program is essential; self-reports, family member reports, observation of attitude alteration, and behavior changes are generally insufficient. Therefore, urine testing is an integral part of the office-based buprenorphine treatment program and should be explained as such to patients during the initial discussion of the treatment rules and expectations. Patients must understand that this, too, is an ongoing part of their treatment.

Considerations

Because it is an ongoing part of buprenorphine treatment, the physician must make several fundamental decisions about urine testing procedures.

| Timing of Testing | A plan for urine testing must include a decision between random and scheduled testing. Random testing dramatically increases the probability of detecting illicit drug usage: Patients can no longer plan their drug usage around a testing schedule. A possible method of implementing random testing may require patients to call the office on scheduled days to ascertain whether that particular day will be a testing day. |
| Frequency of Testing | The physician must also consider the frequency of testing. In methadone maintenance programs, more frequent testing provides a more complete picture of drug use habits, thus helping to direct treatment (Wasserman et al., 1999). SAMHSA (2004) recommends administering monthly urine tests to patients being treated for opioid dependence. These tests should screen not only for continued opioid use but also for use of other illicit drugs (SAMHSA, 2004). |
| Collection Methods | Collection monitoring is an important consideration in urine testing -- direct observation is the most definitive mechanism of observation. By requiring the patient to leave coats, purses, etc., outside the bathroom and having a same-sex observer present, the chances of obtaining a doctored sample are minimized. If direct observation is not desired or possible, thermometers or testing machines that analyze urine temperature are an appropriate substitute. If patients have a substantial commute, physicians may consider testing the patient in a location outside the office, although similar monitoring considerations must be taken into account at collection times. To prevent patients from tampering with their samples using available materials, collection facilities could lack soap dispensers and cleaning agents (NIDA, 1986). If dilution of urine is a concern, consider dyeing toilet water or installing a chemical toilet (NIDA, 1986). |
| On-Site Versus Off-Site Testing | Physicians must decide whether on-site or off-site urine testing is the more appropriate choice for their treatment program. Each has its advantages. Advantages of on-site testing include less handling of the sample, the potential for mistakes, a "greater sense of confidentiality," and quicker results (NIDA, 1986). In most cases, a positive result should be confirmed using a different testing technique at an off-site laboratory (NIDA, 1986). However, in some cases, a positive result should be confirmed using a different testing technique at an off-site laboratory (NIDA, 1986). Advantages of off-site testing include immediate access to additional tests to confirm a positive result, which decreases potential mistakes, and expertise of the laboratory staff (NIDA, 1986). If testing is to be done off-site, specimens should be stored in a secure (locked) location until they are shipped (NIDA, 1986). If analysis is done, be sure to secure all sampling accoutrements, such as cups, lids, and labels. |
| Test Type | Urine testing for opioids can be done either by immunoassay or by laboratory-based, drug-specific identification using gas chromatography, mass spectrometry, high-phase liquid chromatography, or a similar technique. Immunoassays are fast, easy to use, and reliably detect any natural opioids (codeine, morphine, heroin) that are present. However, immunoassays often do not detect semisynthetic (oxycodone, buprenorphine) and synthetic (fentanyl) opioids (Gourlay et al., 2002). While methadone is a synthetic opioid, immunoassays have been developed specifically to detect it (SAMHSA, 2004). Drug-specific identification is more time consuming and detects only one drug per test, but it is reliable for all drugs (Gourlay et al., 2002). |