UDS in Mental Health: Is it time to Move Forward?
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Introduction

Urine Drug Screening (UDS) guidelines were initially developed by the government for the purpose of fulfilling employment requisites [1,2]. However, UDS have been utilized by some clinicians to facilitate treatment outcomes in specialized populations such as patients suffering from pain and addictive disorders [3-5]. Recently, there has been a debate on the clinical utility of UDS in improving mental health endpoints in all psychiatric subjects [1]. An emerging body of evidence from different lines of research positively supports the application of UDS in psychiatric practice [4]. However, the relative lack of personalization and general disregard for the patient’s ongoing clinical condition renders the traditional 5-substance panel ill-equipped. More specifically, this conventional panel fails to address issues that pertain to compliance, adherence or drug diversion. In line with this, it has been further reported that drug diversion losses alone may amount to approximately $73 billion per year, which is a peril for health payers [6,7]. These new findings have increased the awareness of psychiatrists and have motivated them to expand the use of drug screens in accordance with evidence-based practices. Proactive initiatives may decrease patient mortality as well as associated social and economic burden on society at large.

The Diagnostic Algorithm

Urine Diagnostic Screening (UDS) can be visualized as a tripartite formula that consists of 1) screening 2) confirmation and) verification [3]. This algorithm is altogether transferable to the realm of mental health assessments. However, ER psychiatry patients are generally exempt from the “not medically necessary” instructions that pertain to UDS, therefore initial and confirmation screens may be required [3].

Embracing a Holistic Paradigm

In the hopes of addressing the pervasive issue of underutilized drug testing, The American Society of Addiction Medicine (ASAM) established the White Paper as a pragmatic guide for clinicians. The focus of the paper is on preventative processes and timely diagnosis. Furthermore, the paper maintained that urinary testing could be modulated in accordance with patient needs. ASAM is in favor of a holistic assessment program that encompasses “primary prevention, diagnostic and monitoring” techniques for substance abuse [2]. ASAM eschews the conventional government endorsed 5-substance panel (THC, opiates, Amphetamines, PCP and Cocaine) in support of an overarching paradigm that integrates accessory drug testing in conjunction with a comprehensive, “rotating panel” and patient-tailored UDS [2]. Inherent to this paradigm is an evidence-based approach to therapeutic intervention that takes into account the clinical context. The “rotating panel” is administered due to overall “greater prevention power” and applicability. Additionally, locations with individuals subjected to sporadic testing may warrant the implementation of a more comprehensive panel [2]. ASAM highlights the Physician Health Programs (PHPs) as a model worth emulating. PHPs do not adhere to conventional drug screens, emphasizing the importance of continual drug testing that spans several years [2]. Initially, it is advised to increase the number of drug tests, but at a later date, the weekly assessments can be reduced based on more favorable results. If there are any observed discrepancies, the clinician can revert back to the original testing schedule. PHPs tend to administer quantitative analysis with accessory (e.g. hair/nails/blood) testing, if deemed clinically necessary. ASAM is confident that PHPs approach will translate into effective results in a number of communities [2].

Adjusting UDS Cutoffs

The practice of adjusting cutoffs appears to be the most clinically effective mode of evaluating compliance. Research seems to indicate that decreased cutoffs facilitate compliance assessment. In fact, if clinicians aim to improve their compliance rates they should employ decreased cutoffs. Furthermore, the established cutoffs are derived from ER overdose studies and are in dire need of adjustments, especially with respect to a patient’s current clinical situation [4]. Substance Abuse Mental Health Services Administration (SAMHSA) recognizes the importance of adjusting UDS cutoffs stating; “test results below the cutoff concentration may be clinically significant” [6].

Monitoring for Drug Adherence/Compliance and Diversion

Frequently diverted and/or misused drug classes include, opioids, stimulants, sleep medications and benzodiazepines. Thus, medicolegal considerations often warrant the ongoing implementation of drug monitoring. Patients who take opioids for pain management may consistently report perceived abuse for their medication use behavior. However, it should be noted that the patient might lack a conscious or perceived motive to ‘abuse’ the drug in question. These statements generally reflect a summary of use as opposed to ‘precise patterns’. If patients continue to experience untoward drug reactions, they may attempt to decrease the recommended dosage. Thus, it is important for the physician to exercise caution and oversee patient drug use without assuming a criminal motive and/or underlying resentment. Psychosocial consequences of misdirected or misguided drug use can be averted by the diligent application of UDS [4]. Despite patient assurance, there may exist situations where concomitant alcohol consumption is present alongside prescription medications (e.g. benzodiazepines, z-drugs, opiates etc.). Historically, pills were manually numbered and a mental health practitioner performed a health evaluation. However, in order to further ensure patient safety and compliance, reduce instances of mortality resulting from alcohol-related interactions, active drug monitoring should be regarded as a priority. Although, the American
Pain Society initially administered opioid treatment recommendations only for patients with ongoing malignancies, physicians of various specialties have adapted UDS guidelines as a function of therapeutic management. In accordance with these guidelines, physicians may supplement existing UDS practices (e.g. medication adherence/compliance) with "periodic" UDS that takes into account the patient's fluctuating clinical condition (e.g. comorbidities, psychosocial status, subjective features of pain, etc.). POC immunoassays are relatively popular diagnostic procedures that provide screens for compliance/adherence as well as possible diversion [4].

The Importance of Preventive, Routine Screening and Confirmation

Study designs reflecting Cincinnati and California Emergency Room (ER) psychiatry patients have revealed that comprehensive UDS has a nonexistent effect on observable behavior or overall length of hospital stay [1]. Moreover, the research indicated that polysubstance abuse appeared to be even more prevalent in individuals that presented to the ER without psychotic features. Thus, it is not prudent for physicians to diagnose patients exclusively based on the prevailing toxicity profile. In roughly 20% of patient cases, the expected acute symptomatology does not appear to correspond with the drug in question. Adequate investigation of drug etiology necessitates confirmation via gas chromatography and/or mass spectrometry. Confirmation testing is an underutilized screening technique, leading to subpar assessment of patient's acute clinical status. Concomitant substance use by a third of Cincinnati and California ER psychiatry patients provides a strong rationale for the routine and comprehensive implementation of UDS. Furthermore, quantitative screening reveals valuable information about patient drug use timeline (acute vs. chronic use) [1]. After perusing the literature for evidence-based practices, specialists from The Texas Pain Society concluded that an effective intervention program for opioids should integrate regular UDS [5]. Other high-yield components of an organized UDS program include fastidious observation of the patient's mental health/conduct and medications [5]. A holistic paradigm for UDS implementation that incorporates cutoff adjustments and expanded panel may have practical implications, including a reduction in non-adherence and increase in compliance, resulting in fewer complications. Given the aforementioned clinical strategies, our team is proposing the comprehensive (routine and periodic) use of a 12-substance panel (THC, Benzoylcegonline, d-Amphetamine, d-Metamphetamine, Morphine, Methadone, Oxycodone, Oxazepam, MDMA, PCP, Propoxyphene and Secobarbital) that is administered on a case-by-case basis. The patient's toxidrome may further guide therapy, especially within the context of confirmatory testing.

References


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