Clinical Update: August 2022

BEHAVIORAL HEALTH:
# WHY MONITOR PATIENTS FOR MEDICATION ADHERENCE?

Mental health illness affects almost a half billion people globally every year including millions of Americans. Data from 2020 showed that 21% of Americans experienced any mental illness and 5.6% of Americans experienced a serious mental illness.[1] Over the last 2.5 years many Americans lives have been altered due to the COVID-19 pandemic, some in ways that affect one's ability to work, take care of their family, or to obtain necessities for daily living such as medications. Certainly, stress and anxiety levels have changed for many reasons for many people due to the pandemic. The CDC reported early in the pandemic (June 2020) that ~40% of U.S. adults reported struggling with mental health or substance use.[2] The prevalence rates of mental illness among different demographics such as age, race, or gender, shows that mental illness can occur in just about anyone at any point in their life.

Despite mental illness being so widespread, many individuals unfortunately are not able to get the treatment they need. For many, a large part of the management of behavioral health conditions is the use of medications. Unfortunately, adherence rates to medications for many mental health conditions are not optimal and associated with poor outcomes. In this month's clinical update, we examine the literature to see what the problem with medication adherence in behavioral health is and the impact non-adherence has. Lastly, we discuss how Aegis as a high-complexity laboratory can test for medication adherence and how medication monitoring can help providers manage patients with behavioral health conditions.

MEDICATION ADHERENCE

Adherence to prescription medication regimens for many chronic conditions has been reported to be challenging and one of the biggest obstacles to managing complex medical conditions. Nonadherence may occur prior to starting a medication where the prescription may never be filled at a pharmacy by patients, or even if they are filled, many patients may stop taking their medicine without direction to do so or may not take their prescriptions regularly as prescribed. A Cochrane Review showed that patients who are prescribed self-administered medications only take about 50% of their doses.[3] There likely will be some variation in how different patients take certain medications for different conditions, but it's estimated that at least 80% adherence is needed to achieve optimal therapeutic efficacy.[4]

The prevalence of any mental illness in the United States in 2021 was about 50 million and the prevalence of substance use disorder was about 17 million.[1,5] Medication adherence rates in mental health conditions are often lower than all medication adherence data and can vary depending on the diagnosis. Estimated adherence rates reported in 2013 for various conditions are: major depressive disorder (28–52%), bipolar disorder (20–50%), schizophrenia (20–72%) and anxiety disorders (57%).[6] A systematic review published in 2020 reports similar findings with nonadherence for schizophrenia, major depressive disorders, and bipolar disorders were 56%, 50%, and 44%, respectively.[7] What these statistics and data show is that a large number of Americans are affected by mental illness and, for many of these conditions, medications are a mainstay of their management. However, these data show that adherence rates to prescribed medications are not optimized which may result in poor outcomes for many patients.
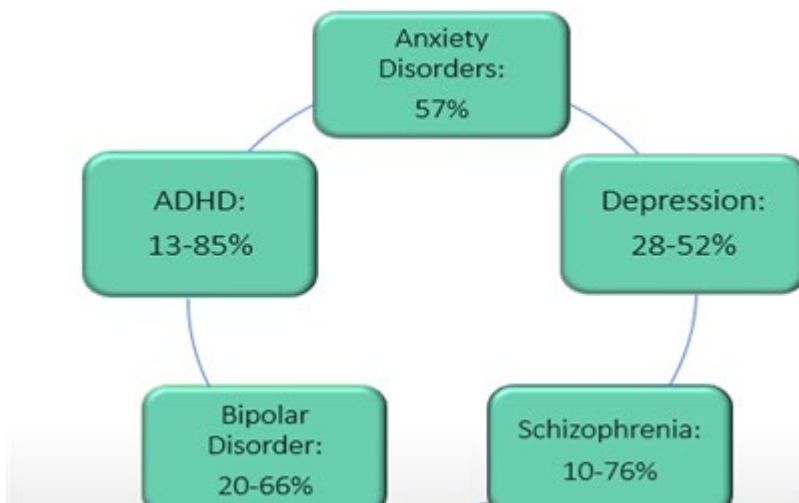
Figure 1: Medication Adherence Rates in Patients with Mental Illness

IMPACT OF NONADHERENCE

Nonadherence may result from a myriad of reasons among patients with a behavioral health diagnosis. Patient attitude toward medication or the influence of friends/family can impact adherence. Other substance use, such as alcohol or tobacco use, has been associated with psychotropic medication nonadherence.[6] Diagnosis stigma or medication stigma has also been associated with medication nonadherence. Certainly, a blend of all these factors may play a role into each individual patient's willingness to adhere to a prescribed medication regimen. Consequently, patients with mental illness who are nonadherent to their prescribed medications may experience adverse outcomes.

A few examples of poor outcomes from medication nonadherence are exacerbations of illness, which can lead to hospitalization, increased substance misuse, poor quality of life, relapse of symptoms, reduced effectiveness of subsequent treatment, and increased risk of suicide.[6] In addition to the detrimental direct effects on the patient, many of these outcomes can also lead to increased healthcare spending, especially among patients with multiple chronic conditions. A retrospective study among Medicare super-utilizers, defined as those with ≥3 hospitalizations or ≥2 hospitalizations with ≥2 emergency department (ED) visits in 6 months, found that medication nonadherence and mental health diagnosis were significantly associated with higher hospitalizations and ED visits.[8] This study suggests the importance of early monitoring and addressing medication nonadherence and behavioral health needs among this patient population.

DRUG TESTING: WHY TEST AND DOES THE TEST METHOD MATTER?

Many healthcare professionals may wonder if testing for medication compliance is necessary among their patients with behavioral health conditions, especially if they feel the patient is honest and the patient-provider relationship is strong. Unfortunately, what the data show in behavioral health is that the conditions themselves can lend patients to report things that may not be true. In addition, drug testing not only gives the provider the ability to assess compliance to prescribed therapies, but also allows providers to evaluate if polysubstance use may be co-occurring. The objective nature of testing gives providers an unbiased source of insight into their patients' recent medication use that can help support safer prescribing practices. For example, if noncompliance or polysubstance use is identified during an office visit where the clinical picture has changed, providers could avoid the use of additional medications or further workup, potentially reducing healthcare spending. Moreover, adverse drug reactions or drug interactions could be revealed by objective drug testing.

When considering all testing options and pathways, it is important to critically evaluate the differences between testing methods and how the results could impact clinical decisions. Presumptive testing methods frequently report the presence of a medication in a class-based manner, while definitive testing is specific to the ingested substance. The determination of testing method used for a specimen may be guided by asking the following questions:

- What do I need to identify for this patient?
- Will the testing method that I select provide me with the appropriate information to make an adequate treatment decision?

In scenarios where the risk of substance use has been determined by the physician to be low, presumptive testing, indicative of use of a class of medications, may be adequate for decision-making. However, if there are concerns about use of a substance outside of what is being prescribed and class-based presumptive identification does not provide the specificity needed, then definitive testing is necessary.

In conditions such as behavioral health where medication adherence is less than desirable, definitive testing shows its value over presumptive testing. Definitive testing lacks the false positive/negatives observed with presumptive testing and can test for metabolites as well as parent drug.[9] Furthermore, a definitive test gives healthcare providers confidence and helpful insight to allow them to make effective decisions. Each day clinical drug test results play a pivotal role in patient diagnosis and treatment. Patients, their families, and physicians depend on these results with the expectation that the data presented are complete, quality-driven, accurate, and reliable. Aegis recognizes the need for quality care. We are committed to offering a test menu that is responsive to the needs of patients and the clinicians who care for them.

NOTICE: The information above is intended as a resource for health care providers. Providers should use their independent medical judgment based on the clinical needs of the patient when making determinations of who to test, what medications to test, testing frequency, and the type of testing to conduct.

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