Genetic Testing for Mental Health Conditions

DESCRIPTION

Individual genes are purportedly associated with risk of psychiatric disorders and specific aspects of psychiatric drug treatment such as drug metabolism, treatment response and risk of adverse effects. Genes that have been implicated in mental health disorders or their treatments include, but are not limited to:

- serotonin transporter gene (SLC6A4)
- serotonin receptor genes (5HT2C, 5HT2A)
- sulfotransferase family 4A, member 1, gene (SULT4A1)
- dopamine receptors (DRD1, DRD2, DRD4)
- dopamine transporter gene (DAT1 or SLC6A3)
- dopamine beta-hydroxylase (DBG) gene
- gated calcium channel gene (CACNA1C)
- ankyrin 3 (ANK3)
- catechol O-methyltransferase gene (COMT)
- methylenetetrahydrofolate reductase gene (MTHFR)
- mutations in the y-aminobutyric acid (GABA) receptor
- OPRM1 gene
- UDP-glucuronosyltransferase gene (UGT1A4)
- P-Glycoprotein Gene (MDR1)

Individual genetic tests are available to risk stratify individuals for one of several mental health conditions, including schizophrenia and related psychotic disorders, depression, bipolar, obsessive-compulsive disorder and substance-related and addictive disorders.

Commercially available testing panels include several of these genes and are intended to aid in the diagnosis and treatment of mental health disorders. These tests include the Genecept™ Assay, GeneSight® Psychotropic panel, Proove Opioid Risk assay, and Mental Health DNA Insight™ panel).

POLICY

- Genetic testing for mutations associated with mental health disorders, including but not limited to, the following, is considered investigational:
  - To confirm a diagnosis of a mental health disorder in an affected individual
  - To predict future risk of a mental health disorder in an asymptomatic individual

- Genetic testing panels for the treatment of other conditions/diseases, including, but not limited to, mental health disorders is considered investigational.

See also: Cytochrome p450 Genotyping

IMPORTANT REMINDERS

- Any specific products referenced in this policy are just examples and are intended for illustrative purposes only. It is not intended to be a recommendation of one product over another, and is not intended to represent a complete listing of all products available. These examples are contained in the parenthetical e.g. statement.

- We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan,
the Member's health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.

ADDITIONAL INFORMATION

Most studies evaluating the association between genotype and mental health disorders are without clinical perspective; thus diagnostic characteristics and validated risk predictions among specific clinical populations are unknown. There is no clear strategy for how the association would be used to diagnose a specific individual or manage an individual at higher risk of a specific disorder. The evidence is insufficient to determine the effects of the technology on health outcomes.

SOURCES


EFFECTIVE DATE

11/12/2016

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