Functional Medicine CE Cardiometabolic Summit
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Activity Overview
Depression, anxiety, and attention disorders are commonly encountered across healthcare settings, yet many patients experience persistent symptoms or incomplete responses to conventional treatment. While pharmacotherapy and psychotherapy remain important components of care, a growing body of research highlights the influence of metabolic dysfunction, inflammation, nutritional status, hormonal changes, circadian disruption, medication effects, and gut-brain interactions on mental health.
This program provides healthcare professionals with an evidence-informed, integrative framework for evaluating and managing patients with mood, anxiety, and attention disorders. Through expert-led presentations and clinical case discussions, participants will examine the biochemical and physiologic mechanisms contributing to psychiatric symptoms, evaluate appropriate laboratory and pharmacogenomic testing, and explore targeted nutritional, lifestyle, and pharmacologic interventions.
The curriculum also addresses medication-induced psychiatric symptoms, evidence-based approaches to psychotropic medication selection and deprescribing, and the recognition of clinical presentations requiring psychiatric referral. Case-based learning will emphasize the interpretation of clinical findings, prioritization of interventions, and development of individualized treatment plans.

Target Audience
This activity is designed for an audience of Physicians, PAs, Pharmacists, Nurses and Dieticians.

Learning Objectives
Upon completion of the educational activity, participants should be able to:
Describe current prevalence, treatment-response, and remission data for depression and anxiety disorders

• Identify physiologic contributors to mood, anxiety, and attention symptoms that symptom-only diagnosis may miss, including inflammatory, metabolic, nutrient, hormonal, microbiome, circadian, and medication-related factors

• Outline a sequenced integrative clinical approach that moves from medication review and laboratory assessment to targeted intervention and safe medication management

• Recognize red flags requiring urgent psychiatric evaluation and define referral thresholds for non-psychiatric clinicians • Describe inflammatory and immune signaling pathways that modify mood and anxiety

• Explain the mechanisms linking the gut microbiome and intestinal barrier function to brain function

• Identify tryptophan and kynurenine metabolism as a mechanistic link between inflammation and depression

• Analyze how metabolic dysfunction and chronic stress converge on shared inflammatory pathways

• Describe circadian regulation of mood, cortisol rhythm, and melatonin signaling

• Identify circadian disruption as a contributor to depression, anxiety, and cognitive symptoms

• Evaluate light exposure, sleep timing, and meal timing interventions for circadian realignment

• Recommend evidence-informed approaches to circadian support in patients with mood and anxiety disorders

• Assess iron and ferritin, zinc, magnesium, and omega-3 status in patients presenting with attention symptoms

• Evaluate the evidence for dietary elimination and food additive removal in pediatric ADHD

• Identify sleep-disordered breathing and circadian disruption as contributors to attention presentations

• Apply pharmacogenomic and clinical criteria to stimulant and non-stimulant selection

• Recognize adult ADHD presentations commonly misattributed to anxiety or depression

• Describe the biological roles of S-adenosylmethionine (SAMe) and methylation in the central nervous system.

• Assess the role of folate, vitamin B12, and vitamin B6 status in one-carbon metabolism and mood regulation.

• Evaluate clinical trial evidence for SAMe and related B vitamins in depression, including monotherapy and adjunctive use.

• Identify appropriate candidates, dosing strategies, and monitoring considerations for SAMe and related B-vitamin supplementation.

• Recognize prescription and OTC agents with established neuropsychiatric adverse effects, including montelukast, fluoroquinolones, corticosteroids, beta-blockers, isotretinoin, varenicline, and interferon

• Assess cumulative anticholinergic burden and its association with cognitive impairment and long-term dementia risk

• Distinguish medication-induced psychiatric symptoms from primary illness using temporal reasoning and dechallenge logic

• Develop a systematic medication-review protocol to screen for iatrogenic contributors before initiating psychiatric treatment

• Interpret fasting glucose, fasting insulin, HOMA-IR, and A1c in patients presenting with mood or anxiety symptoms

• Evaluate hs-CRP, IL-6, and ferritin as inflammatory markers, including ferritin's dual role as an acute phase reactant and an iron store

• Assess B12, methylmalonic acid, homocysteine, folate, vitamin D, omega-3 index, magnesium, and zinc in relation to neuropsychiatric presentations

• Identify high-prevalence drug-nutrient depletion pairs relevant to psychiatry and recommend evidence-informed monitoring and repletion strategies

• Describe CYP2D6 and CYP2C19 phenotypes and their documented effects on antidepressant and stimulant exposure

• Apply CPIC guidance to psychotropic selection and dosing decisions

• Evaluate the current evidence base for combinatorial pharmacogenomic panels and their effect on clinical outcomes

• Analyze nutrigenomic variants relevant to mental health, including MTHFR and one-carbon metabolism, and distinguish supported interpretation from commercial overreach

• Counsel patients presenting with direct-to-consumer genomic reports

• Interpret estradiol, progesterone, and testosterone results in the context of depressive and anxious presentations across the lifespan

• Evaluate thyroid panels beyond TSH and cortisol rhythm testing in patients with mood, anxiety, and cognitive complaints

• Interpret stool testing findings relevant to mental health, including bacterial patterns, calprotectin, sIgA, candida, and parasites

• Evaluate zonulin and other intestinal permeability markers, including their evidentiary limitations

• Differentiate antidepressant withdrawal from relapse using symptom onset, quality, and receptor-occupancy principles

• Apply hyperbolic tapering to construct a stepwise dose-reduction schedule for an SSRI or SNRI

• Evaluate benzodiazepine and z-drug deprescribing strategies, including microtapering and long-acting substitution, and identify patient factors that modify taper rate

• Formulate an integrative support plan, nutritional and behavioral, to layer onto a taper while monitoring for protracted withdrawal

• Apply knowledge of anxiety and depression pathophysiology and clinical workup to patient cases

• Analyze laboratory findings across inflammatory, nutrient, hormonal, and microbiome domains to prioritize intervention

• Develop sequenced treatment plans integrating nutrition, targeted supplementation, and pharmacotherapy decisions

• Evaluate monitoring endpoints and treatment response in complex presentations

Criteria for Success
To obtain a certificate of completion, a score of 70% or better on the post-test is required. Please proceed with the activity until you have successfully completed this program, answered all test questions, completed the post-test and evaluation, and have received a digital copy of your certificate. You must participate in the entire activity to receive credit. If you have questions about this activity, please contact AKH Inc. at bethany@akhcme.com.

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This activity was planned by and for the healthcare team, and learners will receive 14.0 Interprofessional Continuing Education (IPCE) credit for learning and change.

Physicians

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Nurses

Credit being awarded: 14.0 ANCC contact hours

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the credentialing agency for the Academy of Nutrition and Dietetics

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If the activity is dietetics-related but not targeted to RDs or DTRs, CPEUs may be claimed which are commensurate with participation in contact hours (One 60 minute hour = 1 CPEU).

RD's and DTRs are to select activity type 102 in their Activity Log. Performance Indicator selection is at the learner's discretion.

Commercial Support

There is no commercial support for this activity.

Planning Committee and Staff Disclosures

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