Complementary and Alternative Medicines in Psychiatry							
Agent	**Purported Use in Psychiatry**	**Proposed Mechanism of Action**	**Effectiveness**	**Suggested Dosage (if known)**	**Side Effects and Safety**	**Drug Interactions**	**Bottom Line**
5-hydroxytryptophan (5-HTP)	Depression	Precursor to 5-HT	About 30 clinical trials with promising results though design and sample size are limited	200-300 mg/d divided tid-qid	Nausea, vomiting, diarrhea, abdominal pain; fatal eosinophilia-myalgia syndrome in the 1980s-90s attributed to contaminated batches	Avoid serotonergics	Short half-life and nausea necessitate tid-qid dosing, making this agent somewhat inconvenient
Chamomile	Anxiety	Unknown	One small randomized trial in mild to moderate GAD	1100 mg/d	Well tolerated, though allergies and anaphylaxis reported	Avoid antiplatelets and anticoagulants	Small study that suggests modest efficacy in mild to moderate anxiety ($p=0.047$)
Inositol	Depression, panic disorder, OCD	Unknown	Minimal efficacy data; mostly studied as adjunct	12-20 gm/d	Flatulence, mania	Unknown	Limited data to support its use except possibly in treatment resistant cases, as augmentation
Kava	Anxiety, insomnia	Unknown	A number of meta-analyses and systematic reviews have found in favor of kava over placebo in anxiety, but results are not consistent	125-250mg/d	Sedation, tremors, ataxia, visual disturbance, mild euphoria, urinary retention, hepatotoxicity, scaly skin rash with heavy use	P450 1A2, 2C9/19, 2D6, 3A4 inhibitor; additive effects with CNS depressants	Not recommended due to potential hepatotoxicity, more common side effects, and possible drug interactions
L-theanine (*Camellia sinensis*, green tea plant)	Anxiety; schizophrenia (as augmentation)	Antioxidant amino acid which may increase 5HT and DA production, inhibition of glutamate reuptake	Preliminary evidence suggests feelings of relaxation in healthy people at resting state but does not seem to reduce experimentally-induced anticipatory anxiety. One study suggests reduced anxiety when used as adjunct to antipsychotics in patients with schizophrenia	200-400 mg/d	Well tolerated	Unknown	May provide relaxation but no evidence to support use in anxiety disorders. May consider as adjunct in schizophrenia
Melatonin	Insomnia	Shifting circadian rhythm pattern	Large amount of data supports role in improving sleep onset (though only by 4-24 minutes) but evidence less clear for improvements in sleep duration or quality	3-5 mg	Dizziness, enuresis, excessive daytime somnolence, headache, nausea; avoid animal-tissue derived products	CYP450 1A2 inhibition	Helpful in jet lag or when hypnotics are contraindicated though only expect quicker onset of sleep, not better or longer sleep
Methylfolate (Deplin) and folates	Depression	Monoamine synthesis	Clinical trials have yielded equivocal results in patients with major depression; may improve response, but not remission, rates when added to SSRI in resistant patients	7.5-15 mg/d	May mask symptoms of vitamin B12 deficiency	Decreased anticonvulsant serum levels	May consider as adjunct, particularly in those with low baseline folate levels; try cheaper folic acid first
N-acetyl cysteine	Addiction (especially cocaine), bipolar disorder, OCD, trichotillomania, schizophrenia	Antioxidant precursor to glutathione	Several small randomized controlled clinical trials and nonrandomized cohorts or case reports suggest tolerability and efficacy in a number of illnesses	1200-2400 mg/d	Well tolerated	Unknown	Mostly preliminary data in wide range of psychiatric illness; more research needed but may hold promise. Safety and positive results thus far support its use, particularly as adjunct
Omega-3 fatty acids (EPA, DHA, alpha-linoleic acid, fish oils)	Depression, Bipolar disorder, ADHD	Cell membrane fluidity	Efficacy data in mood disorders conflicting and ideal dose not established; preliminary evidence suggests small improvements in ADHD	1-2 g/d	Nausea, loose stools, fishy aftertaste	May prolong bleeding time; may have additive effects with antihypertensives	General health benefits, safety and modest effects suggest use can be considered as adjunct; use products with >60% EPA content
S-adenosylmethionine (SAMe)	Depression	Increases NE and 5HT	Review of 48 studies suggested efficacy in mild-to-moderate depression, with more than half of studies producing positive results; studies limited by inconsistencies, small numbers and short duration	200-800 mg bid	Well tolerated but nausea, diarrhea, constipation, mild insomnia, dizziness, sweating reported	Avoid serotonergic agents, antiplatelets and anticoagulants	Promising, but more studies needed before using widely in mild to moderate depression
Saffron stigma *(Crocus sativus)*	Depression	Unknown, likely serotonergic	Limited number of small studies found it more effective than placebo and at least equivalent to imipramine and fluoxetine	15 mg bid	Well tolerated, but nausea, vomiting, headache reported	Avoid antiplatelets and anticoagulants	Very limited data; only consider in mild depression; true saffron very expensive
St. John's wort	Depression	Increases NE and 5HT	More effective than placebo, likely as effective as low-dose TCAs and SSRIs in mild depression; no more effective than placebo or sertraline for moderate to severe depression	300 mg tid	Insomnia, vivid dreams, restlessness, GI discomfort, diarrhea, fatigue, and headache	Many; P450 3A4, 2C9, 1A2 inducer; avoid serotonergic agents	Use only in mild depression; exercise caution with regard to potential drug interactions
Valerian	Anxiety, insomnia	Unknown	Studies are poor and extremely limited and have found no benefit over placebo, both in anxiety and insomnia	400-600 mg/d (insomnia); 500-1200mg/d divided tid (anxiety)	Headache, diarrhea	Unknown	Evidence remains weak; cannot be recommended
Vitamin D	Depression	Unknown	Inconsistent results; one study showed improvement in mild depression	800-2000 IU/d	Well tolerated although high dose can result in toxicity	None	More positive clinical trials needed before this can be recommended

For a complete list of references please see www.thecarlatreport.com.

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