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USE OF SARCOSINE TO AUGMENT TREATMENT OF SCHIZOPHRENIA- REVIEW OF EVIDENCE

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Introduction: A growing number of patients with schizophrenia are using complementary and alternative medicine (CAM) interventions. In this paper, we review the published scientific evidence on the benefits and risks of a natural supplement Sarcosine in patients with schizophrenia. Sarcosine, also known as N-methylglycine, is thought to modulate N-methyl-D-aspartate (NMDA) function through the glycine modulator. It has been investigated as a putative adjunct therapy for a wide variety of disorders ranging from schizophrenia to prostate cancer.

Methods and Materials: We performed a comprehensive review of schizophrenia literature, focusing on complementary and alternative approaches for augmentation treatment. We identified studies published from 01/1985 through 12/2010, by searching the PsycINFO, MEDLINE and CURRENT CONTENTS using the medical subject headings sarcosine, schizophrenia, complementary and alternative therapies and N-methylglycine. We found 6 randomized trials for use of NMDA-glycine site agonists or glycine transporter-1 inhibitors. Inclusion criteria included randomized assignment, comparison with placebo and use of standardized outcome measures (PANS). The results are summarized in Table 1.

Conclusions: Overall the limited current evidence suggests that intake of 2 g/day sarcosine as adjunctive therapy to certain antipsychotic medication in schizophrenia may have additional benefits on both positive and negative symptoms of schizophrenia. Sarcosine had been tolerated well with no notable side effects in excess of the placebo therapy.

Unfortunately most of these studies are small and the routine use of Sarcosine in schizophrenia cannot be recommended without further evidence. In the meantime, patients need to be informed about the possible risks associated with the use of these interventions.