

supplements without experiencing symptoms of overdose. This may include burning sensation of the mouth or stomach, flatulence, nausea/vomiting, diarrhea, thrombocytopenia, and anaphylaxis [Bayan 2014]. The efficacy of garlic for treatment of true parasitosis is unknown, but can be found in common practice especially those who practice naturopathic medicine. In this case, it is unlikely to have a positive effect, especially when delusional in nature. The use of homeopathic medication in those with true parasitosis and delusional parasitosis should be queried.

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### Clinical Evaluation of the Abuse Potential of Buprenorphine/Samidorphan Combination

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**ABSTRACT:** Introduction: Buprenorphine (BUP)/samidorphan (SAM) combination is an opioid system modulator being investigated as an adjunctive treatment for major depressive disorder (MDD). BUP/SAM is a fixed-dose combination of BUP, a partial  $\mu$ -opioid receptor agonist and  $\kappa$ -opioid receptor antagonist, and SAM, a  $\mu$ -opioid receptor antagonist added to address the abuse and dependence potential of BUP.<sup>1,2</sup>

**STUDY OBJECTIVE:** We assessed the effects of SAM on the abuse potential of BUP in the BUP/SAM combination in two ways: (1) a human abuse potential (HAP) study in volunteers; and (2) an evaluation of the clinical experience across studies of patients with MDD.

**METHODS:** Study 212 (ClinicalTrials.gov ID: NCT02413281) was a HAP study in nondependent, recreational, adult opioid users. Following a qualification

period, participants were randomized to 6 treatments in a blinded, crossover design: placebo (PBO), BUP/SAM at the target therapeutic dose (BUP/SAM 2 mg/2 mg), at 8 mg/8 mg and 16 mg/16 mg, and BUP alone (8 mg and 16 mg). The primary endpoint was maximum effect (Emax) for "At The Moment" Drug Liking Visual Analog Scale (VAS).

The clinical program for BUP/SAM included 4 PBO-controlled studies of patients with MDD (n=961). Pooled safety data were evaluated for adverse events (AEs) that may be associated with abuse, dependence, or withdrawal, as well as for objective signs of withdrawal with the Clinical Opioid Withdrawal Scale (COWS).

**RESULTS:** In Study 212 (n=38), Emax Drug Liking VAS scores for the BUP/SAM 2 mg/2 mg dose were similar to those for PBO (median within-subject difference [90% CI]: 2.5 [0.0–9.0]). Emax Drug Liking VAS scores for all BUP/SAM dose groups, including suprathreshold doses, were significantly lower than those observed for either of the BUP doses. The suprathreshold doses of BUP/SAM (8 mg/8 mg and 16 mg/16 mg) had higher Emax Drug Liking VAS scores than PBO, but the differences were small.

In the MDD controlled studies, the incidence of euphoria-related AEs was low for BUP/SAM 2 mg/2 mg and PBO (1.6% vs 0.2%, respectively) and there was no evidence of abuse or dependence behavior. Euphoria-related events typically occurred with treatment initiation and resolved with continued treatment. There was minimal evidence of withdrawal by reported AEs or COWS assessment.

**CONCLUSIONS:** These findings indicate that SAM mitigates the abuse potential of BUP in the BUP/SAM combination. Funding Acknowledgements: Alkermes, Inc.

## REFERENCES:

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### Presence and Impact of Possible Tardive Dyskinesia in Patients Prescribed Antipsychotics: Results from the RE-KINET Study

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