

Combined Medicine and Incentives Yield Best Results for Cocaine

VISN 1 MIRECC researchers have shown that antidepressant medications reduce cocaine use only when incentives are added. In studies evaluating two different antidepressant medications, desipramine and bupropion, medicine alone was no better than sugar pills (placebo) while combined medicine and incentives yielded the strongest results. Patients in both studies were using cocaine several times weekly prior to starting treatment. Patients received one or both of two types of treatment: an antidepressant medication and incentive payments for providing urine specimens indicating no cocaine use. After 24 weeks of treatment around 70% of patients in combined treatments had stopped cocaine use in contrast with 30-50% improvement in other treatment groups. Most surprisingly, neither the incentive payments nor the antidepressant medications were effective by themselves but the results were strong when treatments were combined. In one study, the antidepressant alone and sugar pills both resulted in a 30% success rate at the end of treatment but combined incentives and medication boosted the success rate to nearly 70%. Currently, no medications have received approval by the U.S. Food and Drug Administration as treatment for cocaine dependence. Developing medicines to treat cocaine dependence is important because most patients fail to achieve sustained recovery when treated with behavioral therapies alone. Researchers have evaluated over 30 different medicines for cocaine, mostly concentrating on agents that have actions similar to cocaine itself. Antidepressant medications have generally been shown to be ineffective to reduce cocaine except for the small subgroup of patients who also have severe depression. The current study suggests that this type of medications may have been prematurely rejected because previous studies have not provided a sufficiently strong behavioral treatment to enable the antidepressant effect to have an impact on cocaine use. Treatment of drug abuse is clearly challenging and no single approach is likely to yield long term success by itself. Nonetheless, many of the treatments being developed for drug abuse have been tested as individual agents and not studied in combination with other treatments. The research team for these studies was led by MIRECC researchers Thomas Kosten and James Poling.