
FALSE POSITIVE PHENCYCLIDINE DRUG SCREENINGS DURING PSYCHOPHARMACOLOGIC TREATMENT

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Introduction: False-positive drug screenings have been reported for several drugs and can affect the therapeutic relationship. *Objective:* We wanted to find out, which medication can cause false-positive phencyclidine drug screenings. *Methods:* We systematically looked at all psychiatric inpatients with phencyclidine positive urine drug screenings using a kinetic interaction of microparticles in a solution (KIMS) based system treated in our psychiatric department between 2008 and 2013. *Results:* 39 of 40 positive phencyclidine urine drug screenings could plausibly be explained as false-positives by psychopharmacologic medication. The most frequent common medication in our case series was chlorprothixene, which has not been reported as a cause for any false-positive drug screenings so far. We also found trimipramine as a medication in three cases, being structurally similar to imipramine, which has been reported before to potentially cause cross-reactivity. Other false-positive results could be explained by venlafaxine, lamotrigine, imipramine and tramadol, which have been reported to have the capacity for cross-reactivity. Chlorprothixene and venlafaxine accounted for almost 75 % of the positive screenings. *Conclusion:* Confirmation by a second method like gas chromatography/mass spectrometry should follow positive drug screenings for phencyclidine.