**CORRELATION BETWEEN ECG ABNORMALITIES AND MARIJUANA USE IN THE PEDIATRIC POPULATION**

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*Purpose*: The effects of marijuana on the cardiac conduction system are ill defined. The purpose is to describe the association between electrocardiogram (ECG) findings and positive drug screening (UDS) for marijuana in the pediatric population.

*Methods*: A retrospective chart review from 10/13 - 11/14 of patients ≤ 18 years of age that tested positive for marijuana by urine screen in the Emergency Department (ED). All ECGs performed were reviewed by two blinded pediatric cardiologists.

*Results*: There were 174 patients identified in the ED with a +UDS; median age 15 yrs (0-18 yrs), 42% male. ECG at time of +UDS was performed on 37 (21%). Abnormal ECG finding was identified in 16/37, of which 15 had another ECG performed on a different date. Comparisons were made between these ECGs; significant differences were noted in those patients with +UDS, including ST segment changes (4 patients), left ventricular hypertrophy (3), and one each: atrial fibrillation, QT prolongation, Mobitz type I block, and right bundle branch block.

*Conclusion*: Abnormal ECG findings, including serious rhythm disturbances and conduction abnormalities can be identified in pediatric patients under the influence of marijuana. An ECG should be considered on all patients with a positive urine drug screen for marijuana.