

*[P-201E] Retrospective chart review of metformin use in a Veterans Affairs setting*

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*Metformin is highly utilized for the treatment of type 2 diabetes mellitus at the Kansas City Veterans Affairs Medical Center (KCVAMC). This study was designed to assess the safety, efficacy and patterns of metformin utilization at the KCVAMC. A retrospective chart review randomly selected 110 patients (107 men; mean age 64 yr) who had received metformin. Demographic data was collected. Baseline and final values of serum creatinine, hemoglobin A1C (HbA1C), fasting glucose, and body weight were assessed. Adverse drug reactions, drug interactions, and contraindications to metformin were recorded. Initial and final metformin doses were also documented. Baseline mean body mass index was 32 kg per square meter, and the mean creatinine clearance was 82 mL per min. Serum creatinine values increased from 1 mg per dL to 1.1 mg per dL ( $p=0.33$ ). HbA1C values declined from 10.3% to 8.7% ( $p=0.00002$ ). Baseline (247 mg per dL) and final (193 mg per dL) glucose values were also reduced ( $p=0.00002$ ). No statistical difference between baseline and final weight (99.9 kg vs 99.4 kg) was observed. No patients discontinued therapy due to adverse events. This study suggests that metformin is safe and effective at reducing HbA1C and fasting glucose levels in patients at the KCVAMC. In a setting consisting primarily of elderly, obese, renally competent male patients, metformin is a safe and effective treatment for type 2 diabetics. Lower doses of metformin may achieve desired HbA1C outcomes in this population.*