Objective

The purpose of this quality improvement project was to examine adherence to current CDC guidelines and office policy by providers in our Family Medicine residency practice with the goal to increase compliance with our office controlled substance policy via an educational intervention.

Background

The prescription of opioid medications continues to come under increased regulation and control. In 2012, 259 million prescriptions were written for opioid medications, enough for each adult in the United States to have a bottle. Historically, approximately 20% of patient presenting to a physician for pain received an opioid. Opioids pose serious health risks including addiction, overdose and death. In 2016, the CDC published guidelines regarding prescribing opioids.

Educational Design/Methods

The educational intervention was delivered to a sample of 27 Family Medicine prescribing residents and faculty. Components of the residency clinic controlled substance policy were reviewed with the providers and were the outcomes measured. These included: a) use of the Michigan Automated Prescription System (MAPS) registry, b) ordering a urine drug screen (UDS) test, c) a patient-provider controlled substance agreement (CSA), d) signed informed drug consent form, and e) daily morphine milligram equivalents (MME) less than 50mg.

Outcomes / Results

A total sample of 62 discrete patients were prescribed an opioid medication during the months of October 2017 and January 2018. A sample subgroup of 30 (48.4% total sample) patients had both pre- and post-intervention data.

The two-tailed significance of pre-post differences between the different study measures were examined. A statistically significant increase in providers who completed a controlled substance agreement (p = 0.041) was noted. There was also a statistically significant increase in documentation of an informed drug consent (p = 0.001). However, pre-post MAPS (p = 0.133) and UDS changes were not statistically significant.

Other patient or provider-level characteristics were not able to be controlled for due to the size of the analytic sample.

Discussion

The CSA documentation (Figure 1) increased from pre-intervention baseline in which over 50% of patients had an agreement. In contrast only 10% of patients had an informed drug consent on chart pre-intervention (Figure 2). Of note, over 60% of patients still had not signed the informed consent post intervention.

The lack of significant pre-post changes for the selected outcomes could be attributed to: a) lack of a sufficient-sized and/or diverse enough sample, or b) unmeasured interactive or confounding influences, and/or c) lack of any possible association to detect in the first place. Future studies using larger, more diverse samples may be required to examine these complex relationships with greater statistical power to detect meaningful sample subgroup changes.

Conclusions and Implications

Our educational intervention was successful in increasing documentation of controlled substance agreement and informed consent in our residency practice. In light of recent legislation in the State of Michigan, the importance of having a signed drug consent and following formulated controlled substance agreements has never been greater. Utilizing the CDC guidelines and having a controlled substance policy consistent with current laws can help ensure safe prescribing and protect both physicians and patients.

Data Collection/Analysis

Using retrospective electronic health record data, the presenters examined the following pre- and post-educational intervention measures:

a. Opioid MME prescribed;
b. Whether provider referred to MAPS report;
c. Whether provider ordered a UDS;
d. Whether a controlled substance agreement was created; and

References and/or Acknowledgements

All descriptive and inferential study analysis procedures were completed by Bill Corser PhD at the Michigan State University Statewide Campus using S.P.S.S. version 24 analytic software. 1