IMPACT OF PRIMARY CARE PROVIDER EDUCATION ON APPROPRIATE LEVEL OF OPIOID PRESCRIPTION FOR CHRONIC NONCANCER PAIN

Fabiana Kotovicz, MD1,2; Natalia Arzimendez, MD1,2; Scott Chandler, DO1,2; Alison Perry, DO1,2; Jessica J. F. Kram, MPH2,3; Dennis J. Baumgardner, MD1,2,3

1 Department of Family Medicine, Aurora Health Care, Milwaukee, WI; 2 Aurora University of Wisconsin Medical Group, Milwaukee, WI; 3 Center for Urban Population Health, Milwaukee, WI

BACKGROUND
While rates of chronic noncancer pain (CNCP - pain that persists longer than three months and is not secondary to cancer) are similar across developed countries, the U.S. consumes almost 100% and 81% of the world’s supply of hydrocodone and oxycodone, respectively.

In the last two decades, opioid abuse has become a major problem in the US.

Opioid analgesics are currently the source of more overdose deaths nationwide than heroin and cocaine combined.

Historically, the literature has not supported training interventions with guidelines, recommendations and education to modify primary care provider’s (PCP’s) behaviors on opioid prescribing.

OBJECTIVES
(1) To determine if educating PCP’s on safe opioid prescribing increases the level of appropriateness on use of opioids for CNCP.

(2) To minimize the training gap on chronic pain management for clinicians at two academic family practice clinics.

METHODS
Retrospective chart review of patients ≥18 years of age who were prescribed opioids for ≥90 days for CNCP and managed at one of two academic family practice clinics.

Chart review was performed prior to, as well as 6 and 12 months following, the educational intervention.

- Demographic, health, and social information were collected.

An opioid appropriateness score was calculated based on documentation of nine items:

- Details on drug use, substance abuse or detox
- Pain contract/agreement within past year
- Urine drug screen within last year
- Visit to discuss CNCP at least every six months
- Discussions on expectations about pain level/therapeutic/functional goals
- Use of non-opioid medications
- Imaging/EMG/EMG to identify pain generator
- Consultation with a specialist if on methadone, > 120 MDE or > 2 comorbid psych conditions
- Use of non-pharmacologic methods (PT, OMT)

Descriptive statistics were generated. Comparisons utilized Chi-square, Fisher exact, and Mann-Whitney tests, as well as regression, as appropriate.

The educational intervention included:

- Lecture series
- Posters
- Pocket card/flyers
- Electronic medical record tools
- Patient education
- Bi-monthly educational emails
- Discussions during meetings
- Guidelines/Policy development

Topics discussed during lecture series:

- Opioid physiology and effects
- Identifying opioid abuse in chronic pain patients
- Interacting with the drug-seeking patient
- Pharmacological approaches to pain
- Prescribing opioids responsibly

RESULTS
A Comparison of Patient Demographics: Baseline (pre-intervention) versus 12 month (post-intervention)

- Overall, pre- and post-intervention level of appropriateness were significantly different (p<0.0001) with means increasing from 5.54 pre-intervention to 6.29 post-intervention. Both clinics had significant improvement from baseline (both p-values < 0.003), one clinic showed improvement within 6 months following start of clinician education.

- The intervention was associated with a sustained (> 6 months) improvement in the level of appropriateness for opioid prescription at both clinics.

- Statistically significant increases in appropriateness score items post-intervention included:
  - Discussions on expectations about pain level and therapeutic/functional goals (p<0.0001)
  - Use of non-pharmacologic methods (PT, OMT; p=0.027)

CONCLUSIONS
Provider education on best practices while treating CNCP is associated with increase in the level of appropriateness on the use of opioids for this problem. Lack of standardized training on institutional and individual level is a major challenge for clinicians treating CNCP. Tools and protocols on CNCP management has the potential to promote more comprehensive and integrated pain treatment while minimizing opioid misuse.

REFERENCES