

Treating Chronic Pain: Residents' Attitudes and Behavior toward Managing Patients on Chronic Opiate Therapy

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Abstract

Background. Primary care physicians care for many chronic non-cancer pain (CNCP) patients, yet rarely utilize the Pain Medication Agreement (PMA) and the random Urine Drug Screen (UDS) as tools to monitor for adherence to therapy. We surveyed family medicine residents to describe their preparation for CNCP management, characterize their clinical encounters with CNCP patients, and document their current management practices.

Methods. Family Medicine residents in a large academic medical center were surveyed about CNCP management using a 30-item instrument. This instrument was modified from previously conducted surveys. Univariate data were characterized by response rate.

Results. Of the 24 residents who completed the survey, 54% perceived their residency training in CNCP management to be good and 96% of them rated patient care as a useful modality for preparation for CNCP management. When asked to characterize their encounters with CNCP patients, 59% of resident physicians perceived that visits with CNCP patients take longer. Only 25% found the care of CNCP patients rewarding and only a third of residents were as confident managing CNCP as diabetes. While all residents reported that the PMA was helpful when managing CNCP, only two residents reported having ordered a random UDS on all of their patients within the last six months.

Conclusions. Although residents perceive the management of CNCP negatively, they reported good preparation for CNCP management. In addition, residents reported high utilization of the PMA. Use of the random UDS was surprisingly low. Further study is warranted to determine which educational modalities are linked to utilization of CNCP management strategies and what barriers and biases prevent adoption of the random UDS.

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Introduction

Approximately 70 million Americans currently have chronic non-cancer pain (CNCP) defined as persistent pain lasting for more than three months.¹ Primary care physicians care for a significant proportion of these patients. As physicians have grown more comfortable treating CNCP with chronic opiate therapy (COT), there has been a concomitant increase in prescription opioid misuse, medication diversion, and medication overdose.²⁻³

Recent consensus guidelines recommended the use of Pain Medication Agreements (PMA) and random Urine Drug Screens (UDS) for monitoring adherence to drug therapy, but primary care physicians rarely use these tools.⁴⁻⁸ Poor utilization of PMA and UDS may be a product of poor preparation for CNCP management.⁹⁻¹² On the other hand, physicians may find these tools to be unhelpful. To better understand the impact of residency training on the util-

ization of the PMA and random UDS, residents were surveyed about their preparation for CNCP management, the quality of their clinical encounters with CNCP patients, and their current management practices.

Methods

Setting and subjects. Thirty residents in a family medicine residency program at a large academic medical center located in the Midwest were surveyed. Residents saw patients at one of two family practice locations between two and four half-days a week. Although a PMA was available for use at both clinical sites at the time of the study, there were no specific guidelines for CNCP management within the resident clinics.

Data collection. A 30-item survey was developed that utilized modified items from previously conducted surveys.^{13,14} A draft version of this instrument was pilot tested and items were modified to enhance clarity. The survey was divided into three sections. All items used a 5-point Likert scale for responses. First, resident physicians were surveyed about their preparation for CNCP management. Second, residents were asked to rate their level of agreement with statements about the quality of their clinical encounters with CNCP patients. Third, residents were asked to rate the frequency with which they utilized the PMA and random UDS for CNCP management. In addition, residents were asked to rate the helpfulness of these tools.

In the fall of 2008, the survey was distributed and collected on the same day during a resident didactic session. Participation was voluntary. The project was approved under 'exempt' status by the institutional Human Subjects Committee.

Data analysis. Univariate data were characterized by response rate. For bivariate data, two-by-two tables were constructed to

detect factors associated with level of training, level of preparation, and frequency of encounters. Fisher's exact and Chi-square tests were used when appropriate and a p-value of less than or equal to 0.05 was the threshold for statistical significance.

Results

Of the 30 eligible residents, 24 (80%) completed the survey. Of these, 21 respondents (88%) reported that medical school provided poor to fair preparation for management of CNCP and 13 (54%) reported that residency provided good preparation for management of CNCP. During residency training, 20 respondents (83%) rated patient care as excellent to outstanding in terms of CNCP management training. Only 11 residents (46%) rated time spent with a preceptor as excellent to outstanding for preparation. Response ratings for the usefulness of educational modalities in preparing residents for CNCP management are shown in Table 1.

When asked about the quality of their clinical encounters with CNCP patients, 14 residents (58%) agreed that visits with CNCP patients take longer. Only six residents (25%) agreed that they find care of CNCP patients rewarding. When asked about confidence, 13 (54%) disagreed with the statement that they are just as confident managing CNCP as diabetes.

When asked about current management practices, all residents, except one, reported some degree of utilization of the PMA. When asked about utilization of the random UDS, 15 (63%) reported that they had ordered few to none for their CNCP patients within the six months prior. Of note, only two residents reported having ordered a random UDS on all of their patients within the last six months.

All residents reported that the PMA was helpful in preventing early and after-hours refill requests (see Table 2). All residents

reported that PMA was helpful in providing rules that can be enforced. When asked about PMA violations, nine residents (38%) reported that they had fired a patient from the clinic within the last six months. Of concern, eight residents (33%) reported having been verbally or physically threatened over a conflict born out of violation of a patient’s PMA.

Two-by-two tables were constructed to detect factors associated with level of

training, level of preparation, and frequency of encounters. No significant associations were found.

Discussion

Although consensus guidelines recommended the use of the PMA and random UDS to monitor for adherence to therapy, primary care physicians rarely use these tools.⁴⁻⁸ In this study, the impact of residency training on utilization of these

Table 1. Usefulness of educational modalities for preparation for CNCP management.

Educational Modality, n (%)	N/A	Poor	Fair	Good	Excellent	Outstanding
Standardized patients	8 (33)	4 (17)	3 (13)	7 (29)	2 (8)	0 (0)
Time spent with preceptor	1 (4)	2 (8)	5 (21)	5 (21)	11 (46)	0 (0)
Case-based presentations	0 (0)	3 (13)	3 (13)	12 (50)	6 (25)	0 (0)
Lectures	2 (8)	1 (4)	4 (17)	13 (54)	3 (13)	1 (4)
Self-study	0 (0)	0 (0)	6 (25)	10 (42)	8 (33)	0 (0)
Patient care	0 (0)	1 (4)	0 (0)	3 (13)	15 (63)	5 (21)
Personal experience with CNCP	8 (33)	2 (8)	3 (13)	6 (25)	5 (21)	0 (0)

Table 2. Helpfulness of Pain Medication Agreement for CNCP management.

	Not Helpful	Somewhat Helpful	Helpful	Very Helpful	Extremely Helpful
Prevention of, n (%)*					
Early refill requests	0 (0)	1 (4)	6 (27)	6 (27)	9 (41)
After-hours refill requests	0 (0)	1 (4)	4 (18)	6 (27)	11 (50)
Requests for refills after medications are lost or stolen	1 (4)	2 (9)	3 (14)	7 (32)	10 (45)
Monitoring for, n (%)*					
Abuse	2 (9)	2 (9)	4 (18)	8 (36)	6 (27)
Addiction	4 (18)	4 (18)	2 (9)	8 (36)	4 (18)
Diversion	2 (9)	3 (14)	4 (18)	7 (32)	6 (27)
Providing for, n (%)**					
Rules that can be enforced	0 (0)	0 (0)	3 (13)	7 (30)	13 (57)
Grounds for termination from clinic	0 (0)	1 (4)	2 (9)	6 (26)	14 (61)

* n = 22. ** n = 23.

tools was investigated. Residents rated their preparation for CNCP management to be good and reported high utilization of the PMA. Use of the random UDS, however, was low.

Our first objective was to describe residents' preparation for CNCP management. The majority of residents perceived their preparation to be good. Of note, patient care was rated as the most useful modality for preparation. Patient care is not a traditional educational modality like lectures, case-based presentations, and time spent with a preceptor. In addition, patient care is highly variable within and between residency programs. Further study is warranted to determine which educational modalities are linked to utilization of CNCP management strategies.

Our second objective was to characterize the quality of clinical encounters with CNCP patients. Previous studies with internal medicine residents found CNCP visits to be less satisfying than visits for general medical problems.¹³ In our study, residents reported seeing CNCP patients often, and, like their internal medicine colleagues, they perceived these visits negatively. The majority of residents perceived that visits take longer, that care is not rewarding, and that they lack confidence for caring for CNCP patients compared to patients with diabetes. In addition, a third of the residents reported having been verbally or physically threatened in the context of CNCP management.

Our third objective was to describe current management practices. A previous study with internal medicine residents found the PMA to be useful when managing CNCP.¹⁴ Yet, in the same study, only 37% of internal medicine residents reported that the majority of their CNCP patients had a PMA in the chart. In our study, 19 residents (79%) reported that their CNCP patients

have a PMA in the chart often or always. Residents perceived the PMA to be helpful for preventing inappropriate refills and monitoring for abuse, addiction, and diversion. While managing CNCP, residents have to be aware of signs of misuse, abuse, addiction, and diversion. Our study underscores how important the PMA is to residents in this regard.

Interestingly, our study revealed that residents are not monitoring for adherence with the random UDS regularly. To our knowledge, this was the only study to date addressing resident use of the random UDS in managing CNCP. Residents were either not aware that they can order a random UDS for their CNCP patients or they were unwilling to do so. Asking a patient for a random UDS may precipitate threatening patient behavior. Over a third of surveyed residents reported being verbally or physically threatened over a conflict related to pain medication. Residents need to be taught not only how to use the random UDS to confirm compliance, but how to do so safely within the clinical setting. Further study is warranted to understand the barriers and biases preventing use of this tool.

Our study had a number of limitations. First, we surveyed family medicine residents in one training program. Our response rate was high, but our sample size was small. In addition, our findings may be unique to our training site and biased by self-report. Last, our findings do not address patient-important outcomes.

Conclusions

Residents reported high utilization of the PMA while use of the random UDS was low. Further study is warranted to determine which educational modalities are linked to utilization of these management tools and what barriers and biases prevent adoption of the random UDS.

References

- ¹ Brunk D. Chronic pain is public health problem. *Family Practice News* 2009; 39(21):7.
- ² Hall AJ, Logan JE, Toblin RL, et al. Patterns of abuse among unintentional pharmaceutical overdose fatalities. *JAMA* 2008; 300(22):2613-2620.
- ³ Harris G. FDA to place new limits on prescriptions of narcotics. February 9, 2009. Accessed at: www.nytimes.com.
- ⁴ McLellan AT, Turner B. Prescription opioids, overdose deaths, and physician responsibility. *JAMA* 2008; 300(22): 2672-2673.
- ⁵ Chou R, Fanciullo GJ, Fine PG, et al. Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *J Pain* 2009; 10(2):113-130.
- ⁶ Bhamb B, Brown D, Hariharan J, Anderson J, Balousek S, Fleming MF. Survey of select practice behaviors by primary care physicians on the use of opioids for chronic pain. *Curr Med Res Opin* 2006; 22(9):1859-1865.
- ⁷ American Academy of Pain Medicine and American Pain Society. The use of opioids for the treatment of chronic pain: A consensus statement from the American Academy of Pain Medicine and the American Pain Society. *Clin J Pain* 1997; 13(1):6-8.
- ⁸ Sinatra R. Opioid analgesics in primary care: Challenges and new advances in management of noncancer pain. *J Am Board Fam Med* 2006; 19(2):165-177.
- ⁹ Darer, JD, Hwang W, Pham HH, Bass EB, Anderson G. More training needed in chronic care: A survey of US physicians. *Acad Med* 2004; 79:541-548.
- ¹⁰ Blumenthal D, Gokhale M, Campbell EG, Weissman JS. Preparedness for clinic practice: Reports of graduating residents at academic health centers. *JAMA* 2001; 286(9):1027-1034.
- ¹¹ Cohen AJ. Caring for the chronically ill: A vital subject for medical education. *Acad Med* 1998; 73(12):1261-1266.
- ¹² Olsen Y, Daumit GL. Opioid prescribing for chronic nonmalignant pain in primary care: Challenges and solutions. *Adv Psychosom Med* 2004; 25:138-150.
- ¹³ Chen JT, Fagan MJ, Diaz JA, Reinert SE. Is treating chronic pain torture? Internal medicine residents' experience with patients with chronic nonmalignant pain. *Teach Learn Med* 2007; 19(2):101-105.
- ¹⁴ Fagan MJ, Chen JT, Diaz JA, Reinert SE, Stein MD. Do internal medicine residents find pain medication agreements useful? *Clin J Pain* 2008; 24(1):35-38.

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