Impact of Opioid Patient Prescriber Agreements on Aberrant Urine Drug Tests in Cancer Patients at a Palliative Clinic: A Retrospective Cohort Study

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Introduction:

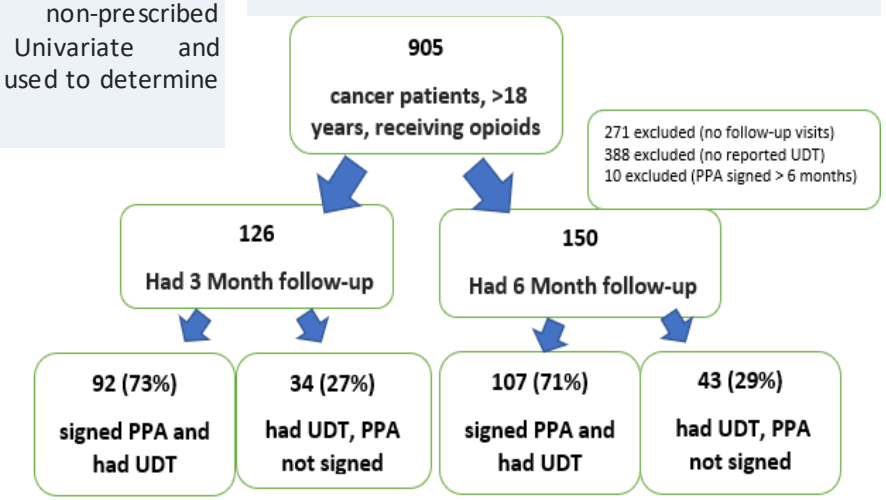
Prescription opioids represent one of the major contributing factors of the opioid epidemic. To effectively relieve severe, chronic cancer pain, opioids are often considered frontline therapy. In recent years evidence has been steadily suggesting that cancer patients might be at higher risk of non-medical opioid use (NMOU) than was previously believed.

Few studies have examined if patient prescriber agreements (PPAs) can reduce NMOU. In this retrospective cohort study, we examined the impact of PPA implementation and aberrant urine drug tests (UDT) in the next 3 and 6 months among cancer patients receiving opioids at a palliative care clinic.

Methods:

Demographic and clinical information of consecutive cancer patients, >18 years, seen between 09/01/2015 and 12/31/2019 who completed a PPA were retrospectively reviewed and compared with those without a PPA.

The primary outcome was aberrant UDT (e.g. positive cocaine and non-prescribed benzodiazepines or opioids). Univariate and multivariate regression models were used to determine factors associated with aberrant UDT.



Results:

- There were 92/126 (73%) and 107/150 (71%) patients who signed a PPA and had UDT results within 3 and 6 months respectively.
- Patients who signed a PPA were:
  - more likely to be male [p=0.028]
  - Had a history of alcohol use disorder [p=0.003].
- **In multivariable analysis, PPA completion was associated with significantly lower rates of an aberrant UDT within 3 months** (OR 0.27, 95% CI: 0.09, 0.73; p=0.012) and 6 months (OR 0.40, 95% CI: 0.16, 0.98; p=0.047).
- Aberrant UDT within 3 months post-PPA completion and at 6 months were associated with:
  - Illicit drug use (OR 7.69, 95% CI: 3.07, 21.18; p=<0.0001)
  - higher baseline pain expression (OR 1.21, 95% CI: 1.04, 1.45; p=0.021)
  - higher Morphine Equivalent Daily Dose (OR 1.01, 95% CI: 1.00, 1.01; p=0.021)

Table 2. Univariate and Multivariate Regression Analysis for Factors Associated with Aberrant Urine Drug Test at 3 months

		Univariate		Multivariate	
Covariate		OR (95% CI)	P-value	OR (95% CI)	P-value
PPA completion	Yes	0.41 (0.18, 0.91)	0.029	0.27 (0.09, 0.73)	0.012
	No	ref			
History of illicit drug use[a]		5.35 (2.49, 11.97)	<0.0001	7.69 (3.07, 21.18)	< 0.0001
Baseline ESAS pain		1.20 (1.05, 1.40)	0.013	1.21 (1.04, 1.45)	0.021
Baseline MEDD		1.01 (1.00, 1.01)	0.041	1.01 (1.00, 1.01)	0.021
Marital status	Single	2.19 (0.82, 6.39)	0.131	-	-
	Married	ref		-	-
Age		0.96 (0.92, 0.99)	0.027	-	-

Abbreviations: PPA, patient prescriber agreement; ESAS, Edmonton Symptom Assessment Scale; MEDD, morphine equivalent daily dose

[a] excluding marijuana

Conclusions:

Despite having more risk factors for NMOU, patients who signed a PPA had significantly lower likelihood of aberrant UDT in the following 3-6 months. This suggests that PPA may decrease NMOU behaviors, highlighting its potential as a risk mitigation strategy. Future prospective studies are needed to further validate its utility in opioid therapy among patients with cancer.

Discussion:

To our knowledge, no other study has examined if PPAs can reduce NMOU in cancer patients. Many see PPAs as controversial, citing risk of patient stigmatization. However, our clinic serves an ethnically diverse, underinsured and uninsured patient population and signing a PPA has not prevented them from getting appropriate, safe opioids. A better understanding of PPAs role in NMOU may help guide clinical practice and potentially reduce NMOU especially among patients with cancer.

References:

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