

# Pain Management in PD: Underutilization of Opioids

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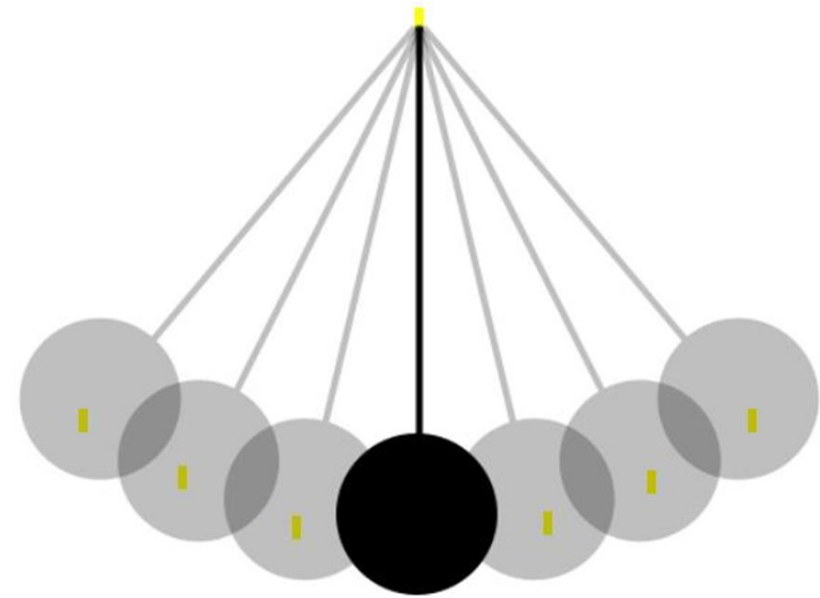


# Learning objectives

- Recognize that pain is highly prevalent in the PD population
- Recognize that pain has a significant impact on HRQOL
- Describe the impact of pain on withdrawal
- Recognize that opioids are an important tool in pain management
- Implement safe opioid prescribing

Is the pendulum swinging towards the other extreme due to...

- Risk for addiction, diversion
- Drug-drug interactions
- Adverse effects



When would opioid usage be appropriate?

## Case: AZ

- 57F with > 25 year history of type 1 diabetes, severe PVD and Charcot foot s/p LLE BKA after recurrent infections, with progressive diabetic kidney disease. eGFR ~ 15 ml/m/in and was considering PD. On high amounts of opioids (MED > 100/day) but stable for years in context of severe pain following L BKA c/b chronic osteo.
- Goals are to maintain her independence, which she is doing.
- Health system is forcing an opioid taper.
- Now patient is reconsidering whether she would do PD because of her pain.

# Prevalence

- Occurs in > 50% of dialysis patients
- 50% of dialysis patients with pain have moderate to severe pain
- Prevalence in the Stage V CKD population is similar (50-60% prevalence)
- Prevalence in PD population ranges from 38-64%

Raghavan D, Adv Chronic Kidney Dis, 2016

Davison SN, Am J Kidney Dis, 2003

Santoro D, Clin Nephrol 2013

Shayamsunder AK, Semin Dial 2005

Davison SN, Semin Dial 2014

# Pain reduces health related quality of life in dialysis patients

n=591 patients (PD & HD), single-center

Symptom	Baseline mental health variation explained	Baseline physical health variation explained	Change in physical health variation explained
Pain	42.5% (with tiredness, lack of wellbeing, and depression)	38.5% (fatigue, lack of well-being, and SOB)	44.6% (with tiredness and lack of appetite)

# Pain and Consideration of Withdrawal

- N=205 HD patients
- 50.2% with pain, 41.4% with moderate to severe chronic pain
- Consideration of withdrawal 3x higher in moderate-severe pain group

*Table 2*  
**Reasons for Consideration of Withdrawal of Dialysis**

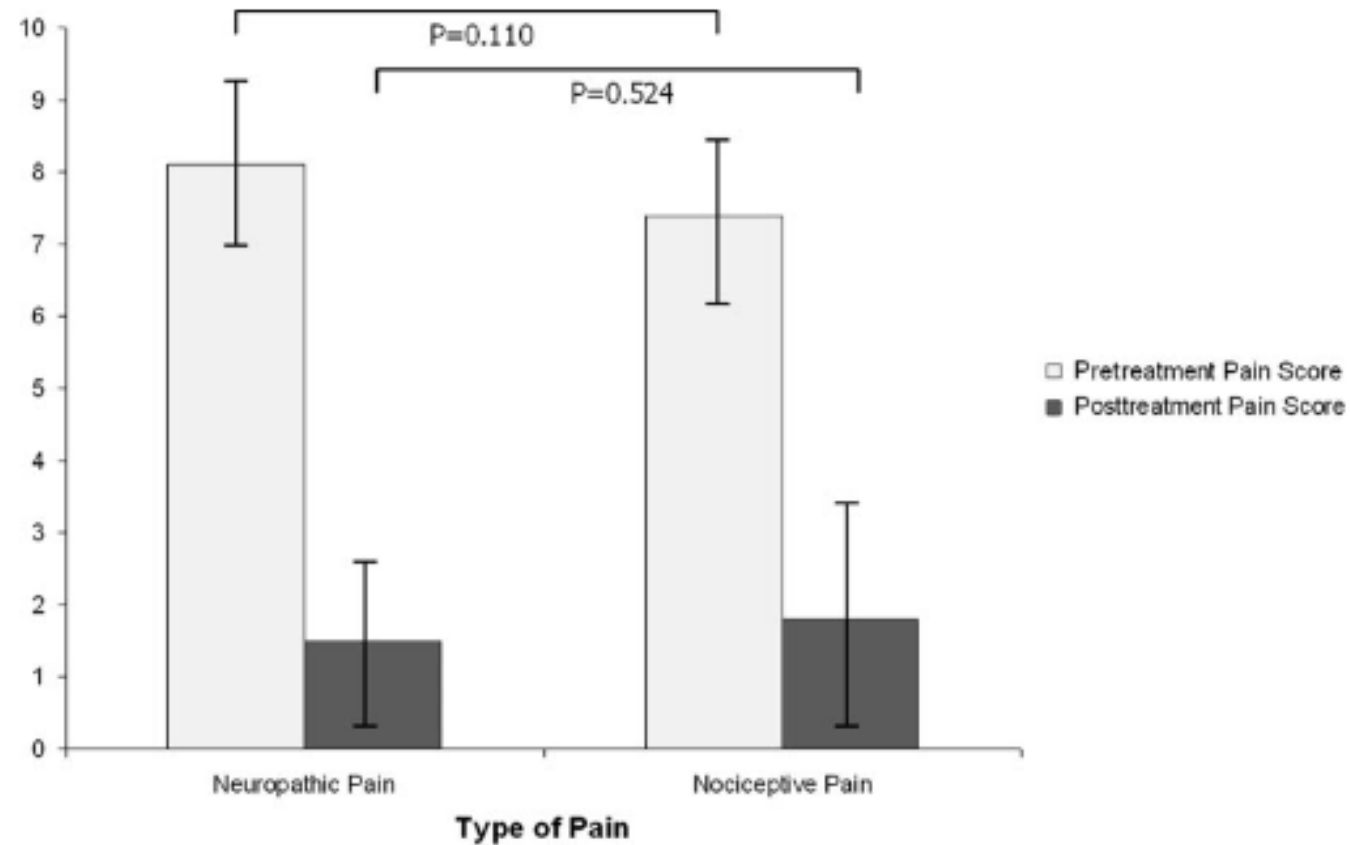
	No-Mild Pain <sup>a</sup> (n = 120)	Moderate-Severe Pain <sup>a</sup> (n = 85)	P
Number of patients (%)	20 (16.7)	39 (45.9)	<0.001
Reasons for consideration of withdrawal from dialysis <sup>b</sup>			
Pain (%)	3 (15.0)	19 (48.7)	0.012
Loss of satisfaction with life (%)	17 (85.0)	28 (71.8)	NS (0.34) <sup>c</sup>
Loneliness (%)	5 (25.0)	11 (28.2)	NS (0.99) <sup>c</sup>
Sense of burden on others (%)	10 (50.0)	18 (46.2)	NS (0.59) <sup>c</sup>
Loss of control (%)	10 (50.0)	22 (56.4)	NS (0.78) <sup>c</sup>
Other (%)	2 (10.0)	6 (15.4)	NS (0.79) <sup>c</sup>

<sup>a</sup>Pain severity was defined using worst pain scores on the BPI.

<sup>b</sup>Totals add to more than 100% as more than one reason could be given.

<sup>c</sup>Not statistically significant ( $P > 0.05$ ).

# WHO step ladder approach to pain management is effective





## PD patients are less likely than HD patients to receive an opioid prescription

- N=153,540, retrospective cohort study linking USRDS data to Medicare data
- Excluded hospice patients
- Compared to hemodialysis patients, PD patients were 32% less likely to receive chronic opioids

Dialysis modality and >90 day opioid Rx	OR (95% CI)
HD	1.00
PD	0.68 (0.64-0.72), p < 0.001

# Is opioid use a marker for severity of illness?

- Increasing opioid use (from short term to escalating doses of chronic opioids) was associated with dialysis discontinuation

Opioid Rx	Discontinued dialysis, HR (95% CI)
None	1.00
Short term	1.13 (1.05-1.22)
Chronic, < 20 MME/d	1.32 (1.15-1.53)
Chronic, 20-50 MME/d	1.36 (1.22-1.51)
Chronic, 50+ MME/d	1.47 (1.30-1.66)



# Strategies to mitigate risk: Universal precautions

- Utilize screening questionnaires
- Opioid treatment agreements
- Monitoring – ie interviewing patient, family members, pill counts, check prescription monitoring program, require use of one pharmacy
- Drug testing, comprehensive patient education
- Involve psychiatry and addiction medicine as needed
- 4 controlled studies, n=91, 335, 500 and 500
  - Primary care and pain clinic settings
- ARR between 6.5% (1.3-11.7% 95% CI) -22.9% (17.3-28.7% 95% CI) of opioid misuse

Date \_\_\_\_\_

Patient Name \_\_\_\_\_

## OPIOID RISK TOOL

		Mark each box that applies	Item Score If Female	Item Score If Male
1. Family History of Substance Abuse	Alcohol	[ ]	1	3
	Illegal Drugs	[ ]	2	3
	Prescription Drugs	[ ]	4	4
2. Personal History of Substance Abuse	Alcohol	[ ]	3	3
	Illegal Drugs	[ ]	4	4
	Prescription Drugs	[ ]	5	5
3. Age (Mark box if 16 – 45)		[ ]	1	1
4. History of Preadolescent Sexual Abuse		[ ]	3	0
5. Psychological Disease	Attention Deficit Disorder, Obsessive Compulsive Disorder, Bipolar, Schizophrenia	[ ]	2	2
	Depression	[ ]	1	1

**TOTAL** \_\_\_\_\_

### Total Score Risk Category

Low Risk 0 – 3

Moderate Risk 4 – 7

High Risk  $\geq 8$

# Summary

- Pain is highly prevalent in the PD population
- Pain significantly reduces quality of life in PD patients
- PD patients are less likely to receive opioids than HD patients
- Consider opioids for chronic pain in patients with moderate to severe pain whose pain does not respond to non-pharmacologic and non-opioid analgesics
- Use universal precautions in opioid prescribing

