The Impact of Targeted Interventions on Improvement in Opioid-Related Quality Measures: The Henry Ford Health Experience

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Background

- CDC released *Guideline for Prescribing Opioids for Chronic Pain*[1] in response to the opioid epidemic in March 2016
- Henry Ford Health System (HFHS) is 1 of 5 AMGA member organizations to participate in a study to determine impact of guideline implementation

Study Objective:
Evaluate the impact of implementing CDC's *Guideline for Prescribing Opioids for Chronic Pain*[1] at Henry Ford Health

Health system-level implementation of interventions to increase safer opioid prescribing and treatment of OUD were associated with improved outcomes.

Methods

- Secondary analysis of HFHS EHR data
- Pre-post implementation analysis (2015 v. 2019)
- Evaluation of 4 patient cohorts:
  1. Chronic pain diagnosis (n=105,709)
  2. Long-term opioid therapy, ≥3 Rx (n=20,878)
  3. New opioid prescription (n=128,327)
  4. Opioid use disorder (OUD) diagnosis (n=8,510)
- Adjusted for patient sex, age, race, ethnicity
- At the zip-code level, adjusted for per capita income, education, opioid overdose death rate, uninsured rate

Interventions

- Chronic pain registry in primary care
- Strategies for:
  - Increasing non-opioid and non-pharma treatments as first line for pain
  - Discouraging co-prescribing of benzodiazepines with opioids
  - Increasing urine drug testing
  - Assessing benefits vs. risks of prescribing high dosage opioids
  - Counseling patients on naloxone
  - Assessing patients for OUD
  - Referring patients to pain management/ addiction specialists for unmanaged pain/OUD

Results

Pre-Post Logistic Regression Model Results*

Measure	Chronic Pain		Long Term Opioid Therapy		New Opioid Rx		Opioid Use Disorder Dx	
	Q1 2015	Q4 2019	Q1 2015	Q4 2019	Q1 2015	Q4 2019	Q1 2015	Q4 2019
Non-opioid treatments for pain								
Non-opioid analgesic prescribing	42.4%	50.1%	59.5%	62.5%				
Safer opioid prescribing practices/opioid risk mitigation								
Urine drug testing			4.6%	14.5%	2.5%	6.1%		
Co-prescribing of benzodiazepines with opioids								
Benzodiazepine co-prescriptions within 30 days of an opioid Rx			28.9%	22.2%	13.2%	10.6%		
Prescription/referral for medications for OUD when indicated								
Naloxone prescriptions			0.0%	0.6%				
Continuous buprenorphine MOUD prescriptions**							6.7%	7.4%
Continuous naltrexone MOUD prescriptions**							0.1%	0.3%
Healthcare utilization								
Opioid-related ED visits	0.3%	0.2%						
Opioid-related hospitalizations	0.6%	0.3%						
Referrals to non-pharmacological treatments								
Pain management ambulatory visits					2.6%	4.0%		
Physical therapy visits							3.6%	4.0%

**All improvements shown are significant ($p < 0.05$)*
***Continuous prescription indicates MOUD prescribed at least 3 times within 180 days, ending in the associated quarter*

Discussion and Conclusions

- Health system-level implementation of interventions were associated with improved outcomes.
- Differences in outcomes between race and ethnic groups were inconsistent:
  - Black patients less likely co-prescribed benzos with opioids
  - Black patients less likely to receive MOUD
- These findings may inform future health system efforts to manage opioid prescribing and pain management.

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References

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CDC has since released the 2022 CDC Clinical Practice Guideline for Prescribing Opioids for Pain, which updates and replaces the 2016 CDC Guideline.

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