**DISCLOSURES**

- No Disclosures
OPIOID “ADDICTION” in CANCER PATIENTS

Prevention & Management

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“A certain surgeon always took some opium, and gave of it likewise to his patient, when he had any considerable operation to perform.”

A Treatise on Opium, George Young, London, 1753
OPIOIDS IN CANCER

Populations

- Opioids in Addicts, Past Addicts
- Opioids in Cancer Pain
- Opioids in Chronic Pain
- Opioids in Postoperative (+/- Cancer) Pain
- Opioids in “Volunteers”

Beecher, Measurement of Subjective Responses, 1959
## OPIOIDS IN CANCER

### Definitions

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abnormality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction/Abuse</td>
<td>Psychological</td>
</tr>
<tr>
<td>Dependence</td>
<td>Physical</td>
</tr>
<tr>
<td>Tolerance</td>
<td>( \downarrow ) Effect ( \uparrow ) Dose</td>
</tr>
</tbody>
</table>
OPIOIDS IN CANCER

Opioid Use Disorder (DSM-V)

Criteria
1. Larger Amounts
2. Failed Discontinuation
3. Craving
4. Impaired Function
5. Tolerance
6. Withdrawal
OPIOIDS IN CANCER

Opioid Use Disorder

1. Brain Circuit Functional Changes
2. Neurotransmitters: Reward
   Self-Control
   Stress
3. Changes Persist Long After Drug Use
4. Multi-Substance; Serious Adverse Events
OPIOIDS IN CANCER

Opioid Withdrawal Syndrome

- Tolerant / Dependent ➔ Stop/Reduce Dose
- Flu-Like Syndrome
- Variable Presentation/Intensity
- Implies Physical Dependence – Not “Addiction”
## OPIOIDS IN CANCER

### Opioid Withdrawal Syndrome

<table>
<thead>
<tr>
<th>Category</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI</td>
<td>Cramps, Diarrhea, Vomiting</td>
</tr>
<tr>
<td>Neuro</td>
<td>Anxiety, Irritable, Restless, Yawning</td>
</tr>
<tr>
<td>Systemic</td>
<td>Chills, Gooseflesh, Sweats/Fever</td>
</tr>
<tr>
<td>ENT</td>
<td>Runny Eyes/Nose, Dilated Pupils</td>
</tr>
</tbody>
</table>
## Important Drugs

<table>
<thead>
<tr>
<th>Drug</th>
<th>Receptor</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>Mu, Kappa</td>
<td>Partial Agonist Antagonist</td>
</tr>
<tr>
<td>Lofexidine</td>
<td>Alpha 2a</td>
<td>Agonist</td>
</tr>
<tr>
<td>Methadone</td>
<td>Mu, NMDA</td>
<td>Agonist Antagonist</td>
</tr>
<tr>
<td>Naloxone</td>
<td>Mu, Delta, Kappa</td>
<td>Antagonist</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Mu, Delta, Kappa</td>
<td>Antagonist</td>
</tr>
</tbody>
</table>
Complications

- Alcohol
- Benzodiazepines
- Cannabinoids
- Nicotine
- Co-Morbidities
- Drug Interactions
## OPIOIDS IN CANCER

### Opioid Prescribing Errors & Pseudo-Addiction

<table>
<thead>
<tr>
<th>Patients (n)</th>
<th>Errors (n)</th>
<th>Strategy</th>
<th>Switch/Rotate</th>
<th>Adjuvant</th>
<th>Titration</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (82)</td>
<td>151</td>
<td>78%</td>
<td>3%</td>
<td>3%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Pain ≥4 (62)</td>
<td>117</td>
<td>76%</td>
<td>3%</td>
<td>3%</td>
<td>10%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Shaheen, JPSM, 2010
Clinical Scenarios

1. New Cancer Diagnosis + Pain + Prior Addiction

2. Current (Prior) Cancer Diagnosis + Opioid Use Disorder
OPIOIDS IN CANCER

Center for Disease Control & Prevention

- Guidelines: Opioids for Chronic Pain (2016)
- Non-Mandatory Guidance for Primary Care
- Intended for Opioid Naive
- Blanket Limits; Mandatory Policy
OPIOIDS IN CANCER

Unintended Consequences

- Dose Limits
- Forced Tapers
- Insurance Denials
- Patient Abandonment
- Red Flags
- Supply Limits
OPIOIDS IN CANCER

Growing Barriers To Access

<table>
<thead>
<tr>
<th>Condition</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance coverage denied</td>
<td>11%</td>
<td>30%</td>
</tr>
<tr>
<td>Refills at a single pharmacy</td>
<td>14%</td>
<td>32%</td>
</tr>
<tr>
<td>Limited refills</td>
<td>21%</td>
<td>36%</td>
</tr>
</tbody>
</table>

ACS CAN & PQLC Opioid Access Research Project, June 2018
OPIOIDS IN CANCER

Opioids Frequently Needed To Effectively Manage Cancer Pain

8 Out of 10

Patients with advanced cancer have moderate to severe pain

<table>
<thead>
<tr>
<th></th>
<th>Experience Chronic Cancer-Related Pain</th>
<th>Use Opioids to Manage Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>55 %</td>
<td>43 %</td>
</tr>
<tr>
<td>Survivors</td>
<td>40 %</td>
<td>10 %</td>
</tr>
</tbody>
</table>

2. Update on Prevalence of Pain in Patients With Cancer JPSM
3. ACS CAN & PQLC Opioid Access Research Project June 2018
OPIOIDS IN CANCER

Principles of Opioid Use in Cancer Pain

1. Individualized Dose Titration
2. Regular + Rescue Dosing
3. Switch (Route)
4. Rotate (Drug)
5. Equianalgesic Doses
6. Anticipate S/E
7. Adjuvant Analgesics
OPIOIDS IN CANCER

ASCO Principles for Drug Access

1. Cancer Patients = Special Population
2. No Arbitrary Prescriptions Limits
3. Patient/Professional Education
4. Opioid-Related Disorders Treatment
5. Naloxone Access

Page, JOP, 2019
OPIOIDS IN CANCER

Opioid Abuse/Addiction Screening in Cancer

1. Drug Monitoring Programs
2. Pain Contracts
3. Screening Tools
4. Support Services
5. Urine Drug Tests

Patel, BMJSPC, 2019
# OPIOIDS IN CANCER

<table>
<thead>
<tr>
<th>Screener</th>
<th>Population Validation</th>
<th>Items</th>
<th>High risk</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Outcome Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 12</td>
<td>227 chronic (non-cancer)</td>
<td>17</td>
<td>≥ 9</td>
<td>0.77</td>
<td>0.68</td>
<td>Aberrant drug behavior index, urine toxicology</td>
</tr>
<tr>
<td>ORT 14</td>
<td>185 chronic pain (non-cancer)</td>
<td>5</td>
<td>≥ 8</td>
<td>c statistic male = 0.82</td>
<td>c statistic female = 0.85</td>
<td>Aberrant drug behavior</td>
</tr>
<tr>
<td>SOAPP-R 18</td>
<td>223 chronic pain (non-cancer)</td>
<td>24</td>
<td>≥ 18</td>
<td>0.81</td>
<td>0.68</td>
<td>Self-report, toxicology screens, physician report</td>
</tr>
</tbody>
</table>
OPIOIDS IN CANCER

Overdose Deaths

1. Overdose Death; Opioid Prescribing
2. Polydrug/Alcohol Abuse
3. Deaths: Fentanyl/Heroin 50%
   Cocaine/Methamphetamine 30%
   Prescription Opioids *
4. * Not Under Medical Supervision
Chronic Pain in Adult Cancer Survivors

1. Screening + Comprehensive Assessment
2. Treatment + Care Options
   a. Non Pharmacological
   b. Pharmacological
3. Risk Assessment/Mitigation: Universal Precautions

Paice, JCO, 2016
Opioid “Addiction” in Cancer

Summary

1. Learning the Wrong Lessons
2. Opioid Use Disorder
3. Pseudo-Addiction & Bad Prescribing
4. Cancer Patients = Special Population
5. Regulatory Barriers
6. Important Drugs
7. Opioids In Survivors
8. Non-Pharmacological Management
THANK YOU
OPIOIDS IN CANCER

Opioid Overdose

- 47,600 Opioid Related Deaths 2017
  - Absolute
  - Relative
- Role of Naloxone
OPIOIDS IN CANCER

Chronic Pain Syndromes with Cancer Treatment

1. Chemotherapy
2. Peripheral Neuropathy
3. Hormonal
4. Arthralgias
5. Graft v Host
6. Paresthesia
7. Surgical
8. Post-Thoracotomy

Paice, JCO, 2016
# Opioids in Cancer

## Frequent Errors (N=177)

<table>
<thead>
<tr>
<th>Patients</th>
<th>(%)</th>
<th>Total Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>70</td>
<td>151</td>
</tr>
<tr>
<td>1</td>
<td>38</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>≥3</td>
<td>6</td>
<td>37</td>
</tr>
</tbody>
</table>

*Shaheen, JPSM, 2010*
OPIOIDS IN CANCER

Opioid Dosing Errors in Cancer Pain

1. Dose - Strategy
2. Dose - Titration
3. Dose - Conversion

Kocchar, Oncology, 2003
OPIOIDS IN CANCER

Important Drugs

- Buprenorphine
- Lofexidine
- Methadone
- Naloxone
- Naltrexone
OPIOIDS IN CANCER

Opioid Prescription Barriers

40% trouble filling opioid prescriptions

- Prior Authorization and/or Precertification Required: 69%
- Limits on Number of Pills Per Prescription: 61%
- Caps on Maximum Dosage: 44%
- Medication Unavailable at Local Pharmacy: 37%
- Patients Often Need Hard Copy of Prescription: 34%
- Inability to E-Prescribe These Drugs in Some States: 28%
OPIOIDS IN CANCER

Terminological Confusion

1. Addiction
2. Dependence
3. Tolerance
4. Withdrawal
OPIOIDS IN CANCER

Outline

1. The Opioid Epidemic
2. The Wrong Lessons
3. Terminological Confusion
4. Opioid Use Disorder
5. Opioid Withdrawal Syndrome
6. The Baby & the Bath Water
7. Prudent Practice
8. Survivors
OPIOIDS IN CANCER

- Opioid Use Disorder
- Opioid Withdrawal Syndrome
OPIOIDS IN CANCER

Opioid Use Disorder (DSM-V)

- Problematic Pattern Of Opioid Use
- Clinically Significant Impairment or Distress
Opioids in Cancer

Interventions

- Integrative Treatments
- Interventional Management
- Neurostimulatory Therapies
- Physical Medicine + Rehabilitation
- Psychological Approaches
OPIOIDS IN CANCER

The Opioid Epidemic

The Response

Opiophobia
OPIOIDS IN CANCER

Pseudo-Addiction

Ineffective Pain Management

Drug Seeking Behavior