Mechanisms Surrounding Unsafe Opioid Prescribing in an SP Based Simulation Module

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Institute of Medicine Report

- 100 million American adults suffer from chronic pain
- Pain costs the US over $600 billion / year in treatment and lost productivity
- Across health care and society alike, there are major gaps in knowledge / education about pain

Pain Education in North American Medical Schools

- Pain taught during other courses, and not in-of-itself
  - Mean = 11.13 hrs
  - Mode = 4 hrs
- 16.3% of US medical schools offer a pain elective
- Opioid management under-represented

### ACGME Program Requirements

<table>
<thead>
<tr>
<th>Residency Program</th>
<th>Acute Pain</th>
<th>Chronic Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PM&amp;R</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Neurology</td>
<td>No</td>
<td>Pain/Palliative Mgt</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>No</td>
<td>Dx Intractable Pain</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>Procedural</td>
<td>No</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

CDC Data

National Overdose Deaths
Number of Deaths from Opioid Drugs

National Overdose Deaths
Number of Deaths from Prescription Opioid Pain Relievers (excluding non-methadone synthetics)

www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates
Simulation Goals

• Reduce harm to patients and society from prescription opioids
• Know risk factors for opioid addiction
• Utilize opioid related diagnostic and management strategies

• Learner Demographics
  – Pain Medicine Fellows
    • Anesthesia and PM&R Residency
      • N =18
  – Anesthesia Residents, Chronic Pain Rotation
    • N =2
Simulation Methodology

• Orientation to simulation and SP
• Outpatient clinic encounter – 40 minutes
  – Outside records given from ED
  – On-site REMS tools available
• Brief dictation written by learner
• Group debriefing with pain faculty
• Feedback/evaluations provided by SP and learner
SP Clinical Story

• Referral: From ED to pain clinic regarding chronic neck pain, frequent ED visits with hydromorphone refill requests

• HPI
  – 39y F s/p MVA 2 years ago, now has axial chronic neck pain
  – HM is "the only medication that works," experiences cravings
  – Prior PO morphine was not helpful
  – No symptoms v/w radiculopathy, occult malignancy, SCI
  – Pt’s PCP does not prescribe opioids
  – Today she took her last HM tablet

• PMHx
  – Bipolar Depression
SP Clinical Story

Medications:
• HM 2-4mg tabs 2-6 per day prn
• Trileptal 600mg BID

Social Hx:
• 1PPD tobacco use, occasional EtOH use. No illicit drugs
• Works at art museum. College degree in fine arts
• Conflicts with her boss for being sedated at work
• Once caught selling HM to a friend at work for their headaches

FHx:
• Father alcoholic, whom sexually molested pt at age 12
• Mother abused thyroid meds for weight loss

Physical Exam:
• VS WNL. B/L cervical paraspinal muscle trigger points
• Neuro exam WNL

Prior Diagnostics:
• MRI, 5 months prior—non-specific age related changes

REMS Elements:
• Opioid Risk Tool (ORT) – High Risk
• PADT / 4As– As per H&P
• UDS-POCT – (+) opioids / HM only
• CURES – Multiple, simultaneous, 1° undisclosed providers
FDA Risk Evaluation & Mitigation Strategy (REMS)

- **Opioid REMS Element**
  - Chronic Opioid Treatment Informed Consent
  - Patient-Provider Agreement (PPA)
  - Regular office visits
  - Use of screening questionnaires / tools:
    - Opioid Risk Tool (ORT)
    - Pain Assessment & Documentation Tool / 4 A’s
  - Controlled Substances Utilization & Evaluation System (CURES)
  - Urine Drug Screening-Point of Care Testing (UDS-POCT)
Management Approach

I. Pt Data: opioid medication(s), dosing, and sources
   • PDMP / CURES
   • Urine Drug Screen
   • Pill Count
   • Opioid Risk Scale (ORT)
   • Pain Assessment & Documentation Tool (PADT) & 4 A’s
   • Clinical Opioid Withdrawal Scale (COWS)
   • Outside records and/or communication with OSH providers

II. Arrive at a diagnosis (eg- tolerance, misuse, abuse, addiction)

III. Decision on assuming opioid prescribing and associated care
   • Informed consent
   • Patient-provider agreement
   • Dosing*, frequency of f/up, & refills (length of leash)
   • Addiction Medicine consult
   • Other resources (eg- complex care/social work consult)
Simulation Results

**Treatment Plan**

- Prescribed Opioid
- Opioid Rotation
- Opioid Wean
- Opioid Contract
- Limited Supply
- Addiction Consult

**Percent of Participants (%)**

- Prescribed Opioid: 70
- Opioid Rotation: 20
- Opioid Wean: 30
- Opioid Contract: 20
- Limited Supply: 10
- Addiction Consult: 5

**Opioid Use Discussed with SP**

- **At Risk**: 80%
- **Tolerance / Dependence**: 10%
- **No Discussion**: 5%
- **Opioid Addiction**: 5%

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Stanford Medicine
Analysis

Thomas Kilmann Conflict-Mode Instrument (TKI)

Roter Interaction Analysis System (RIAS)
### Thomas Kilmann Conflict-Handling Modes vs. RIAS Global Affect

<table>
<thead>
<tr>
<th></th>
<th>Overall Score (OSSP)</th>
<th>Dominance / Assertiveness</th>
<th>Engagement / Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collaborating</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.453*</td>
<td>.455*</td>
<td>.491*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.045</td>
<td>.045</td>
<td>.028</td>
</tr>
<tr>
<td><strong>Avoiding</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pearson Correlation</td>
<td>-.433</td>
<td>-.489*</td>
<td>-.541*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.056</td>
<td>.029</td>
<td>.014</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).
Roter Interaction Analysis System (RIAS)

- Analysis of interactions across medical and health care contexts, including:
  - Adult primary care
  - Emergency medicine
  - OB/GYN
  - Family planning
  - Surgical visits
  - Oncology
  - Pediatrics
  - Dentistry
  - Veterinary medicine
  - Genetics counseling
  - Telemedicine
  - Nursing
  - Mental health
  - Podiatry
  - Adolescent Medicine
  - Psychiatry

- Coding of multiple-speaker dyads (e.g., primary doctor-patient; primary doctor-3rd party; veterinarian-client; pediatrician-parent; pediatrician-child; medical assistant-patient; nurse-3rd party)
Roter Interaction Analysis System (RIAS)

- **RIAS Coding Categories** (selected of 40)
  - Personal remarks, social conversation
  - Shows concern or worry
  - Reassures, encourages or show optimism
  - Shows disapproval – direct
  - Back-channel responses
  - Empathy statements
  - Legitimizing statements
  - Asks for reassurance
  - Gives orientation, instructions
  - Asks closed-ended questions – medical condition
  - Asks open-ended questions – psychosocial
  - Counsels - lifestyle

- **Global Affect Ratings** (selected of 10)
  - Anger / Irritation
  - Anxiety / Nervousness
  - Dominance / Assertiveness
  - Interest / Attentiveness
  - Friendliness / Warmth
  - Responsiveness / Engagement
  - Sympathetic / Empathetic
  - Hurried / Rushed
Analysis

<table>
<thead>
<tr>
<th>RIAS Global Affect</th>
<th>Patient Provider Interaction (PPI)</th>
<th>Overall Score (OSSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger / Irritation</td>
<td>-.542*</td>
<td>-.447*</td>
</tr>
<tr>
<td>Anxiety / Nervousness</td>
<td>-.543*</td>
<td>-.637**</td>
</tr>
<tr>
<td>Interest / Attentiveness</td>
<td>.614**</td>
<td>.583**</td>
</tr>
<tr>
<td>Warmth / Friendliness</td>
<td>.498*</td>
<td>.502*</td>
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<tr>
<td>Sympathetic / Empathetic</td>
<td>.695**</td>
<td>.623**</td>
</tr>
<tr>
<td>Engagement / Responsiveness</td>
<td>.444</td>
<td>.500*</td>
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<tr>
<td>Respectfulness</td>
<td>.738**</td>
<td>.666**</td>
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</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).
Discussion

• Our pilot findings suggest physicians’ global affect and conflict-handling have effects on both patient-reported outcomes and decision making in a simulated opioid interaction.

• While sympathy played a role in building social rapport and higher patient satisfaction, it also influenced physicians’ prescribing decisions for a high risk patient. **Physicians who were rated with higher sympathy scores** (M=4.60, SD=.737) **were more likely to prescribe opioids than those with lower scores** (M=3.00, SD= 1.000); t(18) = 3.292, p=.019.

Limitations

• Simulation

• RIAS
  – Sympathy vs. Empathy

• Sample size
Future Directions

• Empathy Training is an “Essential Learning Objective” recognized by the American Association of Medical Colleges (AAMC)

• Future Simulations
  – Utilization of Jefferson Scale of Physician Empathy
  – Include wider range of disciplines (PCPs, other specialties)
Acknowledgements

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