THA Medication Safety Summit 2018

Journey to an Opioid-Light Emergency Department

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I have no conflicts of interest to disclose

Objectives

- Describe background literature regarding Emergency Department opioid-prescribing and like to opioid addiction
- Describe Baptist Memphis Emergency Department setting
- Review Opioid-Light implementation steps
- Report challenges and strategies
- Describe future directions

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BACKGROUND

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Emergency Department Opioid Prescribing Rates

Rising opioid prescribing in adult U.S. emergency department visits: 2001-2010. Mazer-Amirshahi M, Mullins PM, Rasooly I, van den Anker J, Pines JM. *Acad Emerg Med*. 2014; 21(3):236-43

- Percentage of overall ED visits where any opioid prescribed increased from 20.8% to 31.0%
  - Absolute increase 10.2%
  - Relative increase 49%
- Schedule II increased 7.6% to 14.5%
  - Absolute increase 6.9%
  - Relative increase 90.8%

Rising opioid prescribing in adult U.S. emergency departments: 2001-2010 (Mazer-Amirshahi M et al)

	2005 (%)	2010 (%)	Absolute Change (%)	Relative Change (%)
ED Administration				
Morphine	5.0	6.5	1.5	30.6
Hydromorphone	3.2	6.5	3.3	102.5
Hydrocodone	2.6	3.0	0.1	17.4
Oxycodone	1.3	2.0	0.7	54.2
Non-Opioids	15.2	17.4	2.2	14.2
Discharge Rx				
Hydrocodone	7.9	9.1	1.2	15.4
Oxycodone	2.2	3.9	1.7	79.6
Non-Opioids	10.2	10.1	-0.1	-1.1

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Emergency Department as First Opioid Exposure

Association of emergency department opioid initiation with recurrent opioid use. Hoppe J, Kim H, Heard K. *Ann Emerg Med*. 2015; 65: 493-499.

- Retrospective evaluation of 4,801 patients treated in ED for acute painful condition
- 52% considered opioid-naïve
  - 31% (n=775) of opioid-naïve received and filled opioid prescription
  - 12% (n=299) went on to recurrent use at 1 year follow up
  - Adjusted OR 1.8 (1.3-2.3) versus patients who did not receive opioid prescription at ED visit

Emergency Department as First Opioid Exposure

Emergency department prescription opioids as an initial exposure preceding addiction. Butler M et al. Ann Emerg Med. 2016; 68: 209-212.

- Cross-sectional study of 59 patients with reported heroin or non-medical opioid use
- 59% (n=35) reported first opioid exposure by legitimate medical prescription
- 29% (n=10) reported first opioid exposure through ED

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- 571 beds
- Average 475 patients
- >75,000 ED visits (2017)

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Where were we?

- Baseline usage
  - MME (IV) = Milligrams IV Morphine Equivalent
- ED usage Dec 2016-Jan 2017
  - ~7,200 MME (IV) / month
  - ~120 MME (IV) / 100 patient visits
- Huge variability among providers
  - 5-6x difference between low providers and high providers per 100 patient visits
- Increasing frequency of overdose patients

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Patient reports PAIN

OPIOID Rx

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OPIOID-LIGHT IMPLEMENTATION

Physician Champion

- Dr. Marilyn McLeod, ED Medical Director
- AKA Champion of doing things right
- AKA Champion of having tough conversations when needed
- AKA Champion of cowgirl boots & scrubs

Administrative Support

- Bring in early!
- CEO, CMO, CNO, Quality, Risk Management
- Assure still treating patients’ pain
- Discuss concerns patients may express dissatisfaction if not receiving opioids
- Physicians need to know have support if patients complain

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Develop Order Sets

- Literature review
- 5 Pathways
  - Migraine/Headache
  - Renal Colic/Kidney Stones
  - Musculoskeletal
  - Joint Dislocation/Fracture
  - Abdominal Pain

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Order Set Review

- ED Service Line and Pharmacy & Therapeutics committees
- Build in computerized provider order entry (CPOE) system
- Align operationally
  - Adjust stock and pars in ED automated dispensing cabinets
  - Make order set medications readily available

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Educational Points

- Goals
  - Manage pain effectively while minimizing opioid exposure
  - Decrease long-term risk
- Availability of order set
- Alternative medications
  - Doses, administration, monitoring, possible adverse effects
- Scripting

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Educational Opportunities

- ED Provider meetings
- Staff meetings
- Shift huddles
- ED intranet website
- One-on-one discussions

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Patient Interactions

- Consistent message
- Patient reported pain is important to manage
- Engage patients
- Using proven medications
- Discuss risks of opioids
- "We care about taking care of you now and in the future"

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Collaborate and Advocate

- Provider pioneers
  - Trial alternatives
  - Share successes
- Nurse champions
  - KEY!
  - Spread successes
  - Increased comfort in recommending alternatives and/or trialing lower opioid doses
- Pharmacist presence in ED

Track Data

- Daily, weekly, & monthly numbers
- Real-time assessment
- Track trends, order-set/alternative usage
- Target interventions to high-usage providers
- Provided to ED Medical Director
- Presented at monthly ED Provider meetings

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Recurring Progress Meetings

Recommend meeting at least weekly

- Evaluate data
- Incorporate feedback
- Identify obstacles
- Make changes
- Assess impact
- Repeat

Celebrate Progress!

- Change inherently challenging
- Recognize efforts of individuals and team
- Success leads to more success

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HUMPS & BUMPS

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Habits are Habits

- Any act often repeated soon forms a habit; and habit allowed, steady gains in strength. At first it may be but as a spider's web, easily broken through, but if not resisted it soon binds us with chains of steel.
  – Tryon Edwards

Recognizing Poor Prescribing Habits

- Utilized % patients prescribed/patients seen
  - Identified individuals prescribing opioids for >50% of patients seen
- Evaluated type of opioid and dose per prescriber
  - Identified individuals prescribing high dose as default

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Changing Practice

- A nail is driven out by another nail. Habit is overcome by habit.
  - – Desiderius Erasmus
- Targeted education
- Changed providers' "favorites" in CPOE background

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Ketamine

- Previously only physician-administered
- Concerns with nurse-administration of medication classified as anesthetic
- Reviewed by nursing leadership at system level
- Developed nurse education and competency to allow nurse administration of low, analgesia doses

Ketamine Nursing Competency

1. (**True**/False) Lower doses of ketamine are useful for pain while higher doses are used for anesthesia or procedural sedation.
2. (True/**False**) Ketamine causes respiratory depression similar to opioids and other sedatives.
3. (**True**/False) IV Ketamine has an onset of action of action of about 30 seconds.
4. What is the duration of action of and IV dose of ketamine given for pain?
   - a) 5-10 minutes
   - b) 90-120 minutes
   - **c) 15-60 minutes**
   - d) <5 minutes
5. How should nurses administer ketamine for pain?
   - a) Inhalation via nebulizer
   - b) IVP as quickly as possible
   - **c) IVP over 2-5 minutes**
   - d) IM

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Ketamine Nursing Competency

6. What are the monitoring parameters for ketamine? (Select all that apply)
   a) Heart rate   b) Blood pressure
   c) Pain score   d) Respiratory rate
7. What is the maximum IVP dose a nurse can give at a time?
   a) 10 mg   b) 25 mg
   c) 50 mg   d) 100 mg
8. What is the maximum IVP dose a nurse can give in a 4 hour period?
   a) 10 mg   b) 25 mg
   c) 50 mg   d) 100 mg
9. Administering ketamine as fast as possible
   a) Decreases risk of dysphoria and hallucinations
   b) Increases risk of dysphoria and hallucinations
10. (True/False) Low dose ketamine for analgesia can be administered by nurses in the emergency department and critical care areas if nurses have completed Ketamine Pain competency.

Medication Costs

- Opioids are dirt cheap
- Increased IV room time
  - Ketamine syringes
- Increased utilization of IV APAP

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PRN Providers

- Difficult to educate due to sporadic work schedule
- Did not see high number of patients over the month, but often high metrics

KEY POINTS & UNEXPECTED WINS

Let's do SOMETHING!

- Look for partners in leadership
- Find your advocates
- Foster a multi-disciplinary approach
- Listen to and address concerns
- Set GOAL (and lots of small goals)
- Celebrate successes

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Tap into Desire

- Providers want to take good care of patients
- Aware of opioid crisis
- Alternatives appealing to most

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Patient Satisfaction

- Increase in overall patient satisfaction scores
- Stable scores related to pain management

Nurse Satisfaction

- Report fewer pain seeking “frequent flyers”

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FUTURE DIRECTIONS

In-Patient

- Peri-operative pain management
  - Collaboration with anesthesia
  - ERAS / multi-modal order set
  - Nurse education for low dose ketamine and lidocaine infusions for use on floor units
  - Recommendations for post-op opioid duration
- Screening criteria to identify high risk patients
- Pharmacy pain management consults for specific patients
  - Sickle cell crisis
  - PCAs

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ED

- ED discharge prescription review
- System implementation of ED Opioid-Light program
  - 22 Baptist hospitals in TN, AR, MS
- THA state-wide pilot
  - Webinars
  - Any way we can help!

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Acknowledgements

- Rachael Duncan, PharmD, BCPS, BCCCP
- Marilyn McLeod, MD, FACEP, FAEMS
- Dennis Roberts, RPh, Pharmacy Director
- Julie Bennett, PharmD, MBA, BCPS
- Zachary Brent, PharmD, BCPS
- Melanie Mays, RN, ED Nurse Manager
- ED Providers and Nurses!

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