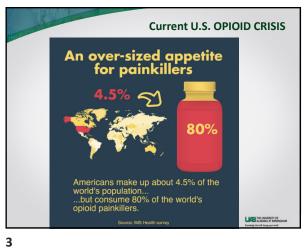
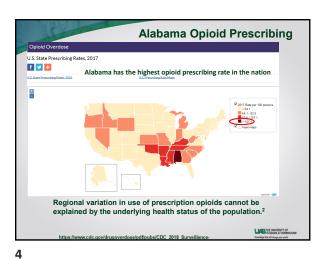


**Disclosures** • I have no actual of potential conflict of interest in relation to this program/presentation • The planners, speakers, moderators, and/or panelists of this CME activity have no relevant financial relationships with commercial interests to disclose • There is no commercial support for this session LE THE UNIVERSITY OF ALABAMA AT BRIMIN

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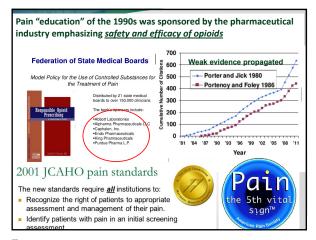






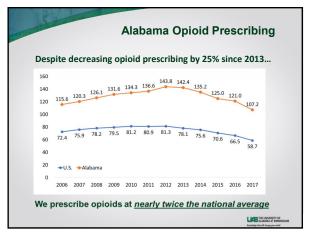


5



Patient Satisfaction, Prescription Drug Abuse, and Potential Unintended Consequences JAMA. 2012 Apr 4; 307(13): 1377-13780 Aleksandra Zgierska, MD, PhD, Michael Miller, MD, FASAM, FAPA, and David Rabago, MD 1. Pressure on clinicians to maximize "throughput" to meet patient volume benchmarks has intensified. 2. Patient expectations shape the health encounter and many patients expect to receive a prescription for a medication 3. Increased pressure to produce positive results as the "quality" of services provided is often based on patient satisfaction targets It takes 30 seconds to write a prescription for Norco, But it takes 30 minutes to NOT prescribe Norco.

7 8



Prescription opioid use is a risk factor for heroin use tional Institute on Drug Abuse (NIDA) Prescription Opioids and Heroin NIH National Inst 86% of young, urban heroin users started off misusing prescription opioids Initiation into nonmedical 1970s 1980s 1990s 2000s 2010s (n=114) (n=214) (n=482) (n=1613) (n=286) use was from 3 main sources of opioids: JAMA Psychiatry. 2014 Jul 1;71(7):821-6. doi: 10.1001/jamapsychiatry.2014.36 family, friends, or personal prescriptions. LIB THE UNIVERSITY OF ALABAMA AT BIRMING

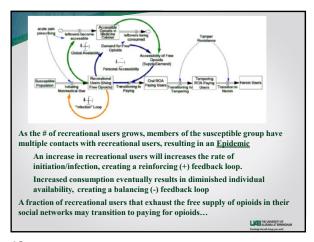
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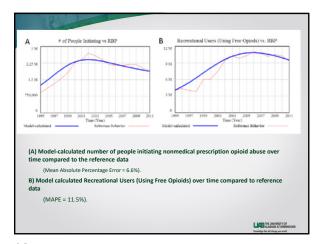
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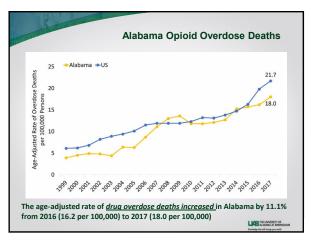
Dynamic Model of Nonmedical Opioid Use Trajectories and Potential Policy Interventions Wayne Wakeland, Alexandra Nielsen, and Peter Geissert Portland State University, Portland, OR Am J Drug Alcohol Abuse. 2015 November; 41(6): 508-518. doi:10.3109/00952990.2015.1043435. Using national surveys and published studies, a system model was constructed to represent <u>nonmedical prescription opioid use as an</u> infectious disease ► The "susceptible, infected, recovered" (SIR) epidemic framework follows a trajectory in which people may: 1. initiate nonmedical use 2. transition to paying for opioids 3. tamper with opioids 4. eventually transition to heroin Model was able to replicate the patterns seen in the historical data for different user populations, and assoc. overdose deaths LAB THE UNIVERSITY OF

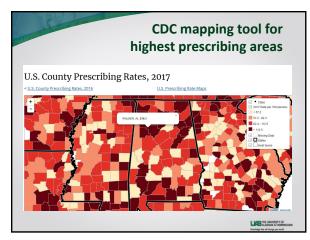
Prescription opioid use may start with exposure via legitimate prescription, peer influence, or social exposure. Susceptible individuals are those who have never used opioids nonmedically. Infectivity is the likelihood that contact results in infection Susceptible person may initiate recreational opioid use depending on the how compelling the idea is — its "infectivity."

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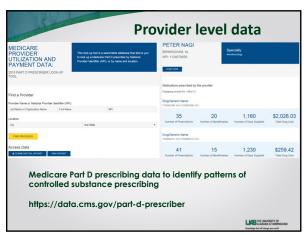






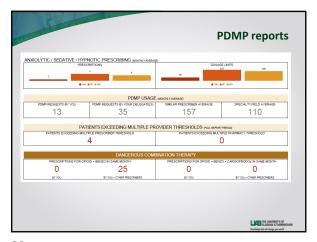
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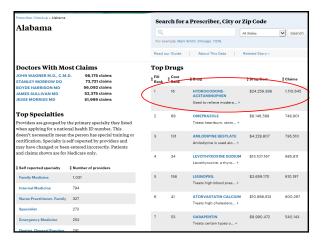


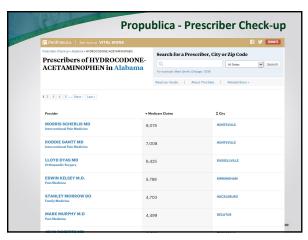


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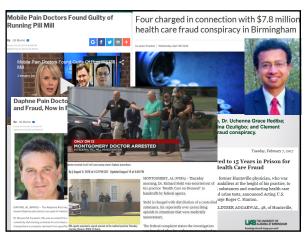








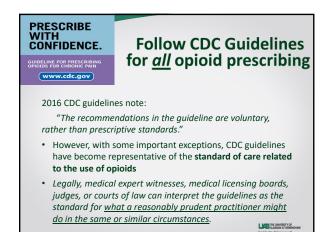
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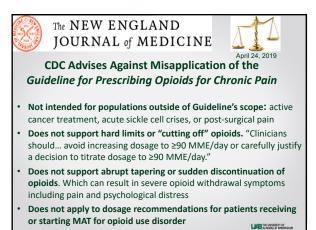


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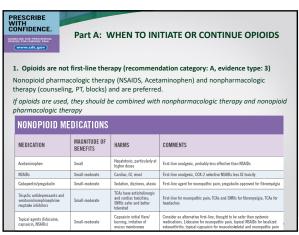
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Follow CDC Guidelines
for opioid prescribing

12 recommendations are organized into 3 areas:
A. When to initiate or continue opioids
B. Opioid selection, dosage, duration, follow-up, and discontinuation
C. Assessing risk/harms of opioid use



PRESCRIBE WITH CONFIDENCE.

Part A: WHEN TO INITIATE OR CONTINUE OPIOIDS

1. Opioids are not first-line therapy (recommendation category: A, evidence type: 3)

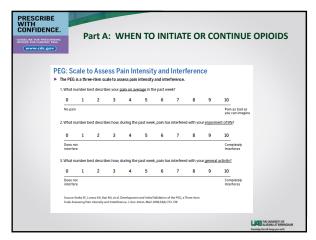
Nonopioid pharmacologic therapy (NSAIDS, Acetaminophen) and nonpharmacologic therapy (counseling, PT, blocks) and are preferred.

If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy

2. Establish goals for pain and function (recommendation category: A, evidence type: 4)

Establish treatment goals with all patients, including realistic goals for pain and function, including how opioid therapy will be discontinued if benefits do not outwelgh risks.

29 30



PRESCRIBE CONFIDENCE.

Part A: WHEN TO INITIATE OR CONTINUE OPIOIDS

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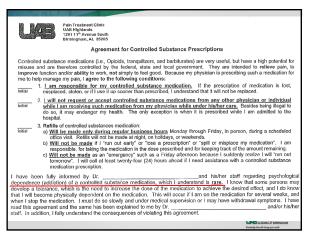
2. Establish goals for pain and function (recommendation category: A, evidence type: 4)

Establish treatment goals with all patients, including realistic goals for pain and function, including how opioid therapy will be discontinued if benefits do not outweigh risks.

3. Discuss risks and benefits (recommendation category: A, evidence type: 3)

Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy. Use patient-provider treatment agreements

31 32



The Role of Opioid Prescription in Incident Opioid Abuse and Dependence Among Individuals With Chronic Noncancer Pain

The Role of Opioid Prescription

Mark J. Eillund, MD. PhD.\* Bralley C. Martin. PharmD? Joan E. Russo, PhD.\*
Andrea De Vries, PhD.\$ Jennifer B. Braden, PhD.\* and Mark D. Sullivan, MD.\*

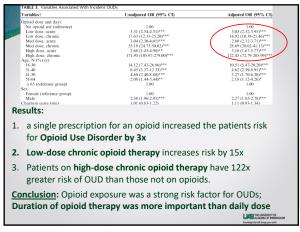
Clin J Pain • Volume 30, Number 7, July 2014

Background: Many providers were taught that there was almost no chance of addiction if you are treating someone for legitimate pain.

Methods: This study utilized claims data (n=568,640) for individuals aged 18 and over with a new CNCP episode (no diagnosis in the prior 6 months), and no opioid use or OUD in the prior 6 months

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PRESCRIBE
WITH
UNITARIES CONTINUATION

4. Prescribe short durations for acute pain (category: A, evidence type: 4)

• Long-term opioid use often begins with treatment of acute pain.

• 3 days or less will often be sufficient; >7 days will rarely be needed.

Center for Disease Control of Processor

Long-termine Opioid use often begins with treatment of acute pain.

• 3 days or less will often be sufficient; >7 days will rarely be needed.

FIGURE 1. One- and 3-year probabilities of continued opioid use opioid-arise patients. by number of day's yupph' of the first point of the supplied of the patients. by number of day's yupph' of the first point of probability of continued opioid use (>1 yr) among opioid-anive patients increases based on:

1. days supplied

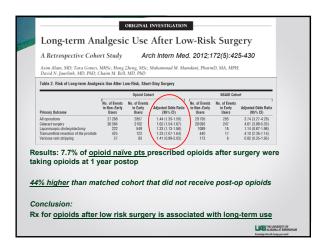
2. cumulative dose

1. days supplied

2. cumulative dose

36

6



JAMA Surgery | Original Investigation JAMA Surgery June 2017 Volume 152, Number 6 New Persistent Opioid Use After Minor and Major Surgical Procedures in US Adults Chad M. Brummett, MD; Jennifer F. Waljee, MD, MPH, MS; Jenna Goesling, PhD; Stephanie Moser, PhD; Paul Lin, MS; Michael J. Englesbe, MD; Amy S. B. Bohnert, PhD, MHS; Sachin Kheterpal, MD, MBA; Brahmajee K. Naliamothu, MD, MPH STUDY DESIGN: US nationwide insurance claims data from 2013-2014 Adults 18-64 yrs without opioid use in the year prior to surgery • For pts filling a perioperative opioid Rx, incidence of persistent opioid use >90 days after both: minor surgical procedures varicose vein removal, lap chole, lap appy, hemorrhoidectomy, thyroidectomy, TURP, parathyroidectomy, and carpal tunnel major surgical procedures ventral incisional hernia repair, colectomy, reflux surgery, bariatric surgery, and TAH · Assessed data for patient-level predictors of persistent opioid use.

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MANA Surgery | Original Investigation
New Persistent Opioid Use After Minor
and Major Surgical Procedures in US Adults
Chall Manufort No. Browler Value, as Sulvey 16. Surgical Surgery 16. Suppose Moore Procedures in US Adults
Water of English No. Progress of Surgery 16. Surgery 16. Surgery 16. Sulvey 16

ew Persistent Opioid Use After Minor MAIN OUTCOMES AND MEASURES nd Major Surgical Procedures in US Adults Risk factors independently associated with new persistent opioid use included: preoperative tobacco use alcohol & substance abuse disorders mood disorders anxiety preoperative pain disorders CONCLUSIONS New and persistent opioid use after surgery is a common occurrence not significantly different between minor and major surgical procedures · assoc with behavioral and pain disorders suggests occurrence is not solely due to surgical pain, but other patient-level predictors may be involved LEB THE UNIVERSITY OF

39

JAMA Surgery | Original Investigation

Correlation Between 24-Hour Predischarge Opioid Use and Amount of Opioids Prescribed at Hospital Discharge

Enc Y. Chen, MD, PhD, Andrew Marcantonio, DO, MBA: Paul Tornetta III, MD

Figure 1. Amount of Opioids Used 24 Hours Before Hospital Discharge or Quantity Prescribed at Discharge or Quantity Prescribed at Discharge of 18,343 postop pts

OUTCOME MEASURES:
Patient's 24-hr pre-discharge opioid use vs. total opioids prescribed at discharge.

RESULTS:

1. Opioids prescribed at discharge were highly variable and
2. Did not correlate with pt's 24-hour pre-discharge opioid use.

PRESCRIBE WITH COMPIDENCE.

Part B: OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

4. Prescribe short durations for acute pain (category: A, evidence type: 4)

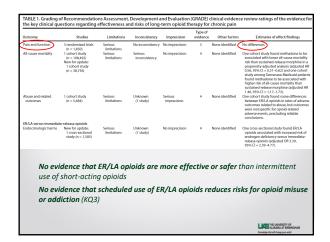
• Long-term opioid use often begins with treatment of acute pain.

• 3 days or less will often be sufficient; >7 days will rarely be needed.

5. Use immediate-release opioids when starting (category: A, evidence type: 4)

• When starting opioids prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

41 42



PRESCRIBE WITH
CONFIDENCE.

Part B: OPIOID SELECTION, DOSAGE, DURATION,
FOLLOW-UP, AND DISCONTINUATION

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• 3 days or less will often be sufficient; >7 days will rarely be needed.

5. Use immediate-release opioids when starting (category: A, evidence type: 4)

• When starting opioids prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

6. Use the lowest effective dose (category: A, evidence type: 3)

• Develop a policy on dosages thresholds.

• Use caution with dosage ≥ 50 morphine mg equivalents (MME) per day

• Avoid increasing dosage ≥ 90 MME per day for non-cancer pain

44

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ORIGINAL INVESTIGATION Opioid Dose and Drug-Related Mortality in Patients With Nonmalignant Pain Arch Intern Med. 2011;171(7):686-691 Tara Gomes, MHSc; Muhammad M. Mamdani, PharmD, MA, MPH; Irfan A. Dhalla, MD, MSc; I. Michael Paterson, MSc; David N. Juurlink, MD, PhD Opioid-related death >200 mc 100-199 mg 2.04 (1.28-3.24) 1.92 (1.30-2.85) 20-49 mg 1.32 (0.94-1.84) ≥200 mg 2.24 (1.62-3.10) 1.47 (0.98-2.19) 100-199 mg 1.31 (0.86-1.99)

Part B: OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

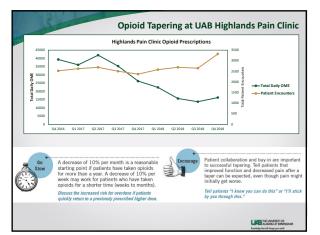
7. Evaluate benefits and harms frequently (category: A, evidence type: 4)

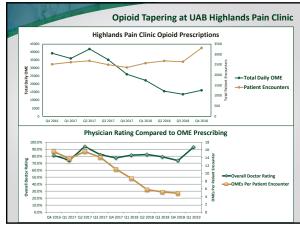
• Clinicians should re-evaluate patients within 1-4 weeks of starting opioid therapy

• Schedule follow-up with patient to assess benefits and harms of continued opioid therapy at least every 3 months

• If benefits do not outweigh harms, taper opioids to lower dosages or to taper and discontinue opioids

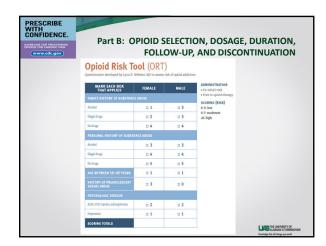
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PRESCRIBE WITH CONFIDENCE. Part C: ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE 11. Avoid concurrent opioid and benzodiazepine prescribing (recommendation category: A, evidence type: 3) Avoid prescribing opioid pain medication and benzodiazepines concurrently Benzodiazepine prescribing patterns and deaths from drug overdose among US veterans receiving opioid analgesics: case-cohort study BMJ 2015 Jun 10;350:h2698. doi: 10.1136/bmj.h2698 Tae Woo Park,1 Richard Saitz,2 Dara Ganoczy,3 Mark A Ilgen,34 Amy S B Bohnert34 Participants: US veterans receiving opioid analgesics who died from a drug overdose (n=2400), compared to random sample of veterans (n=420 386) that received opioids analgesics from VHA medical services LAB THE UNIVERSITY OF

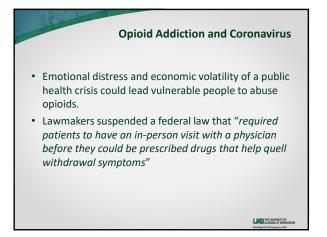
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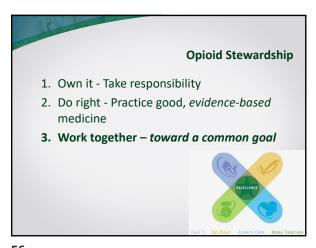
ď 800 Benzodiazepine history Current - O - Former -- O-- None 600 Overdose death 100 000 perso 400 200 ----ō 1-<20 50-<100 20-<50 ≥100 Daily opioid dose (mg/day) Results: 49% of the deaths (n=1185) occurred when veterans were concurrently prescribed BZD and opioids Risk of death increased by 2.3X history of BZD prescription and by 3.8X with current prescription for BZD and opioid Risk of death increased as daily BZD dose increased LAB THE UNIVERSITY OF

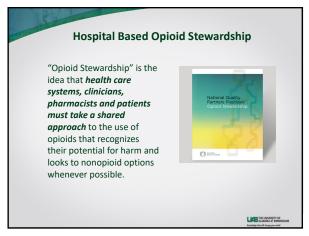
PRESCRIBE WITH CONFIDENCE. Part C: ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE 12. Offer treatment for Opioid Use Disorder Offer or arrange referral to behavioral therapy or addiction specialist for consideration of medication assisted treatment (MAT) with buprenorphine, methadone, or vivitrol 2 STEPS =8 338 =12 300 - V -82 **V** - V LEB THE UNIVERSITY OF ~

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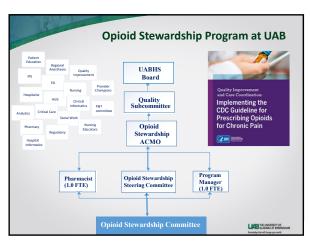


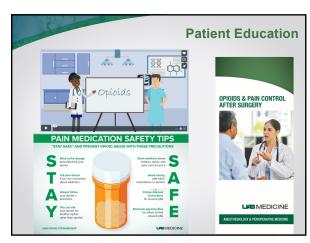






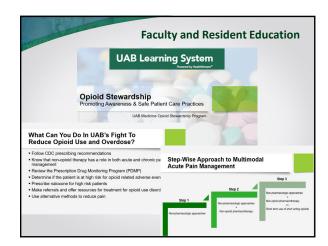
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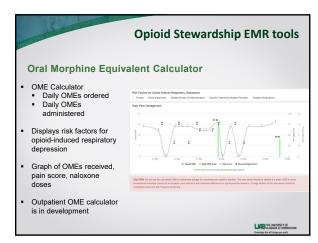




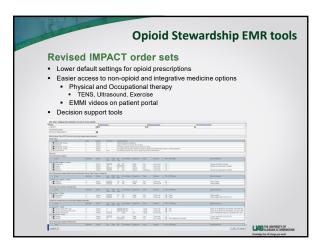


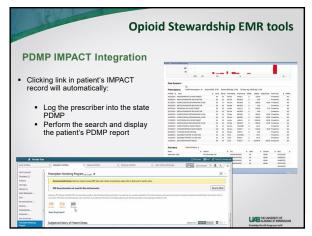


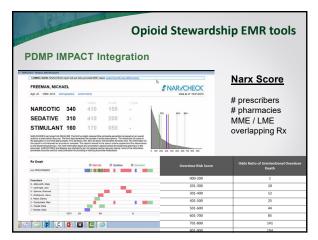




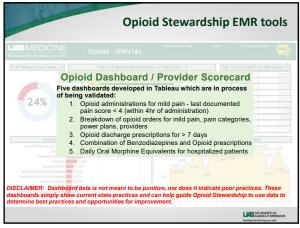


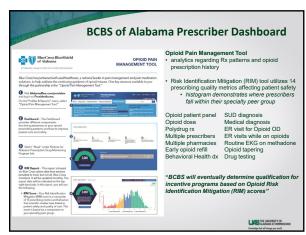






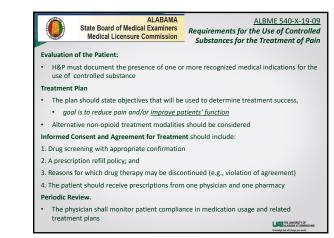
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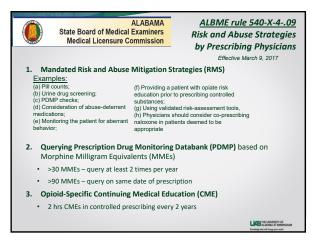




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ALABAMA ALBME rule 540-X-4-.09 Board of Medical Examiners **Medical Licensure Commission** Risk and Abuse Strateaies by Prescribing Physicians 2019 license and registration renewals Amended: effective September 2, 2018 Benzodiazepine use, misuse, and abuse Physicians should reconsider co-prescribing benzodiazepines and opioids, or decline to add a benzodiazepine when prescribing nied due
r nation's current opioid epidemic and increase in opioid-related
ose deaths, other prescribed medications such as stimulants,
diazepines, and certain muscle relaxants also carry a risk of misuse LIPB THE UNIVERSITY OF ALABAMA AT BIRMING

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The Case For Confronting Long-Term Opioid Use As A Hospital-Acquired Condition nael Schlosser, Ravi Chari, Jonathan Perlin In a perioperative pain management summit, Healthcare leaders were alarmed by frequency of post-operative opioid dependence relative to other surgical complications surgical site infection rates are now as low as 1.9% persistent post-operative opioid use ranges from 6-8% Persistent opioid use following surgery could be considered a patient safety concern that meets CMS criteria for  $\underline{\textbf{hospital acquired condition:}}$ · It arises during a hospitalization, · It is a high-cost and high-volume condition · It could reasonably have been prevented through the application of

evidence-based guidelines.

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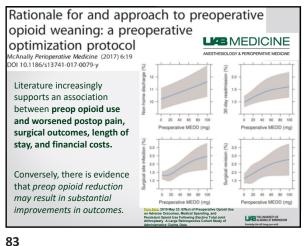
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Preoperative Assessment, Consultation, & **Treatment Clinic** PREOP ✓ Assessment ✓ Education ✓ Optimization LAB THE UNIVERSITY OF ALABAMA AT BIRMING

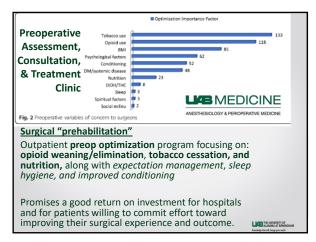
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**LAB** MEDICINE ANESTHESIOLOGY & PERIOPERATIVE MEDICINE WHAT YOU SHOULD KNOW ABOUT OPIOID (PAIN) MEDICATIONS Opioids (pain medications) are very effective in treating short-term severe pain. Ho term use of these medications may actually be harmful <u>Long-term Use of Opioids Can Cause:</u>
1. <u>Tolerance</u> – Your body can get used to the opioids and it may be difficult to control any new pain you experience. Opioid Induced Hyperalgesia (OIH) - Long-term use of these medications may actually cause you to be more sensitive to and feel more pain!

3. Surgical Complications – Individuals taking long-term opioids are at higher risk for infection, for longer recovery time, and for poorer outcomes. Weaning Off Of Your Pain Medication If you have been on opioids for a long time, your doctor may want to slowly decrease your dosage as tolerated. You may discover that your pain is as well controlled or possibly better controlled at lower doses. Your doctor will work with you to develop a plan that is right for you. PATIENTS PREPARING FOR NON-EMERGENCY (ELECTIVE) SURGERY: If you have been on opioids for a long time, it is in your best interest to work with your doctor to slowly decrease your dosage as much as you can tolerate prior to surgery. By doing so, it will give you the best opportunity to have the most successful surgery.

84



**LAB** MEDICINE SeamlessMD **LIFESTYLE** January - March UAB helping ρ Full Customization of Content And Workflows Written by Bob Shepard y Twitter in Linkedin f Template Care Pathways The University of Alabama at is available to hospital patien The service provides an asse patient's need for medication tobacco counselors and tele Alerts & Notifications rvice by calling the UAB Lu 934-0411.

85 86



Purported Mechanism of Action timulation of a 2 adenoreceptors located in the dorsal horns of the spinal cord and focus coercless expected and the spinal cord and focus coercless expected and tental inflammatory pain transmission due to Nmethyl disappratate receptor blockade by the spinal cord of the spinal cord of the spinal cord and focus coercless expected and inflammatory pain transmission due to Nmethyl disappratate receptor blockade data on benefit with amantatine, up to 24 h with destromethorphan
Reduction of opioid use postoperatively after
n gabapentin likely overestimated previously but
still some effect
Up to 24 h with pregabalin for some surgical Decreased release of excitatory neurotransmitters (eg, glutamate, substance R and calcitonin genre-related peptide) due to interaction with  $\alpha$ -2- $\alpha$ -subunits of voltage-gated calcium channels Modulating effect on descending inhibitory pain pathways in the brain Up to 48 h and spinal cord and spinal cord Suppression of central pain sensitization through the inhibition of reuptake of norepinephrine and serotonin as well as antagonism of peripheral sodium channels and spinal N-methyl-d-aspartate of peripheral sodium channels and spiral himstry on-sparative receptors

Decreased release of proinfammatory cytokines (eg. ILE, ILE),

Intraoperative and immediately postoperative members of proinfammatory of the members of proinfammatory of proinfammatory of the members of proinfammatory of providing the members of patients of the members of patients of the members of patients experiencing code pain relief (50% over 4–6 h)

Intraoperative and immediately postoperative and isparative opicid consumption in metal participation of propriets of providing the members of patients experiencing code pain relief (50% over 4–6 h)

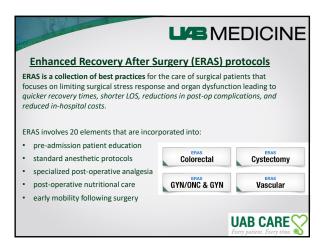
activation of the central noradenosine pathway

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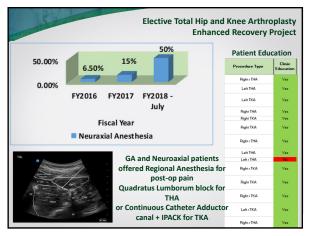


Regional Anesthesia: Upper extremity blocks Lower extremity blocks Truncal blocks **Enidural Anesthesia** Spinal Analgesics The ultimate goal is to tailor individual analgesic plans, based on particular patient's risk for a given surgery, in a way that optimizes pain relief, recovery, and function. **LAB** MEDICINE ANESTHESIOLOGY & PERIOPERATIVE MEDICINE

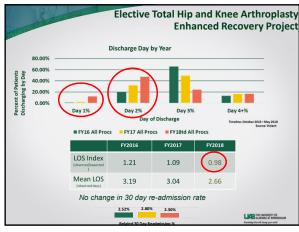
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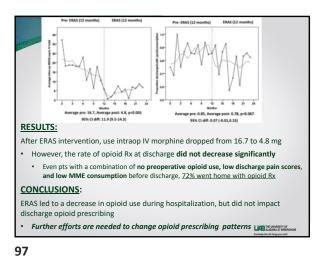


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Impact of Enhanced Recovery After Surgery and Opioid-Free Anesthesia on Opioid Prescriptions at Discharge From the Hospital: A Historical-Prospective Surgery and Opioid-Free Anesthesia on Opioid Prescriptions at Discharge From the Hospital: A Historical-Prospective Surgery and Opioid-Free Anesthesia on Opioid Prescriptions at Discharge Many Properties And Properti

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Gynecologic Oncology Post-op Prescribing Project **UAB Care Redesign** UAB GYNECOLOGIC ONCOLOGY PAIN MEDICATIONS UAB care team leadership
Physician Project Leads: Drs. Haller Smith and Michael Straughn
Administrative Project Lead: Allison Todd
Nursing Project Leads: Erika Lumpkin and Carissa Purvis
UAB Care Team Lead: Laura Leal S) AFTER **GYN ONC Opioid Prescribing** Discharge opioid prescriptions and opioid refills varied significantly by Opioid prescriptions provided were not based on inpatient opioid usage, procedure performed, or individual need **Project Goals:** To create guidelines for opioid prescriptions for common gyn-onc surgical procedures
To educate patients on safe and effective use of opioids and the role of non-opioid medications in controlling postoperative pain
To encourage safe disposal of unused pain medications to prevent
misuse or diversion 3. To maintain excellent pain control and patient satisfaction postop **UAB CARE** 

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Gynecologic Oncology Post-op Prescribing Project **UAB Care Redesign Discharge Prescription Tiers** Tier I – Minor procedure: EUA, Hysteroscopy, D&C, Cold Knife Cone/LEEP • No opioid pain medication prescribed 650 mg Acetaminophen q6 hrs and 400-800 mg Ibuprofen q 6-8 hrs prn Tier II - Laparoscopic/Robotic procedure: Hysterectomy, TAH/BSO Oxycodone 5mg x 5 tabs, take one tab by mouth every 6-8 hours prn pain · 650 mg Acetaminophen q6 hrs and 400-800 mg Ibuprofen q 6-8 hrs prn Tier III - Major procedure: Exploratory Laparotomy, Open TAH, Vulvectomy . Oxycodone 5mg x 15 tabs, take one tab by mouth every 6-8 hours prn pain • 650 mg Acetaminophen q6 hrs and 400-800 mg Ibuprofen q 6-8 hrs prn Tier IV – Chronic opioid use/Excessive postoperative pain Oxycodone 5-10 mg individualized: 3X amount used in 24 hours prior to D/C · Patients treated for chronic pain will continue pain meds from primary MD • 650 mg Acetaminophen q6 hrs and 400-800 mg Ibuprofen q 6-8 hrs prn \* Patients with allergy to oxycodone prescribed Tramadol 50 mg q6hr UAB CARE

**Gynecologic Oncology Post-op Prescribing Project UAB Care Redesign** Average pills per prescription: Goal < 50% FY17 Average Pill Count FY18 Average Pill Count 30.04 23.28 136.67 35.25 60.00 90.00 42.00 90.00 31.57 20.10 11.06 30.45 11.29 20.73 Source: Cerner Oct'16 - June'19 efills by Index Discharge Month FY17 Summary FY18 Summary 13.00% 10.69% 11.37% Refills: Goal ≤ 13% LAB THE UNIVERSITY OF

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**Gynecologic Oncology Post-op Prescribing Project UAB Care Redesign** Patient Survey Survey Results 59% % surveys completed (406/694) Pts Very or 96% somewhat Satisfied % Patients that did 16% not fill Opioid Rx % Patients that 35% % Flushed down 71% toilet % Patients requiring 11% additional Opioid RX

**Gynecologic Oncology Post-op Prescribing Project UAB Care Redesign** UED Visits within 30 days of DC: Goal < 5% **UED/ED Admissions** FY17 Summary FY18 Summary (Oct'18-June'19) by Index Discharge 3.43% 4.45% 2.42% % of UED/ED Visits No increase in UED Visits 4.924 16,282 4,330 taminophen-oxyCODONE 282 120 180 42 180 11,902 16,223 8,098 432 657 635 22,425 9,033 Total Pills Extrapolated 12 months 12,044 LEB THE UNIVERSITY OF

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