

**Collaboration of ACS, AAOS, AANS and HCSC to  
Share Resources and Implement an Opioid Sparing  
Pain Control Patient Education Program for Hip,  
Knee and Spinal Procedures**



**Patient Education**

**Surgical Patient Education Program**  
American College of Surgeons

# Opioid Sparing Pain Control Program

## Evaluating the Effectiveness of a Safe Pain Control After Surgery Patient Education Risk Reduction Program

American College of Surgeons  
American Academy of Orthopedic Surgeons  
American Association of Neurologic Surgeons  
Health Care Services Corporation (Blue Cross Blue Shield)

Kathleen Heneghan PhD, MSN, RN, FAACE

Assistant Director Patient Education Programs

Tarra Barot PhD

Manager Patient Education and Safe Pain Control Program

American College of Surgeons



American College  
of Surgeons

# Conflicts and Disclosures

I have nothing to disclose.

# Objectives

1. Describe the impact of patient education and reinforced messaging to reduce long-term opioid use in surgical patients.
2. Identify professional association and insurance provider resources (such as perioperative interventions) used to enhance recovery and reduce opioids after hip, knee, and spine procedures.
3. Describe how to incorporate Safe Pain Control programs into your clinical practice and participate in a quality improvement program.
4. Align professional pain management practices with current guidelines for opioid reduction.

# Faculty

- **Jonah J Stulberg, MD, PhD, MPH, FACS**  
Vice Chair of Research  
Program Director, Complex Abdominal Wall Reconstruction Fellowship  
Director, Texas Hernia Center  
Associate Professor of Surgery  
Department of Surgery
- **Ben Kurian, MD**  
Executive Medical Director  
Risk Identification & Outreach Program  
Health Care Services Corporation
- **Mary F. Carnduff, MD, MBA, FAAOS**  
Military Assistant to the Under Secretary of the Air Force, Pentagon  
Washington DC
- **Owoicho Adogwa, MD, MPH**  
Assistant Professor, Department of Neurosurgery  
University of Cincinnati



# Mission

Improve the health and well being of surgical patients through the development, delivery, and continued evaluation of effective and high-value education that is accessible to whom, when and where it matters most.

**SURGICAL PATIENT**  
**EDUCATION PROGRAM**  
*Prepare for the Best Recovery*

Be informed about how you can work  
with your surgical team to **safely manage your pain.**

# SAFE AND EFFECTIVE PAIN MANAGEMENT

Your surgical team will work with you to:

- **Screen** for current opioid use and risk for overuse
- **Use alternatives** to opioids whenever possible
- **Educate** you about:
  - Using the lowest dose of opioids for the shortest amount of time
  - Safely getting rid of any unused opioids
  - Knowing the signs of opioid overdose



From the operating room to home—your surgical team cares about your best recovery.

# Background on the Collaboration between ACS and HCSC

American College of Surgeons (ACS) and Health Care Services Corporation (HCSC) entered into a collaboration to provide ACS-endorsed education to high-risk members approved for a musculoskeletal surgery (ie, hip or knee replacements, specific spine surgeries)

High-risk members (RIOSORD): Many of these members are already taking opioids prior to surgery and/or have comorbidities that put them at an increased risk for long-term opioid use following surgery





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Who needs help  
with managing pain  
control in high-risk  
patients currently  
using opioids or  
with OUD?



# Polling Questions

# Opioid Sparing Patient Education Program (for Hip, Knee and Spinal Procedures)

Jonah Stulberg, MD, PhD, MPH, FACS

Associate Professor of Surgery

Vice Chare of Research

University of Texas, Health Sciences Center at Houston

McGovern Medical School



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I do not have any relevant financial relationship(s) with any commercial interest that pertains to the content of my presentation.



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# Opioids in the News: 10 years ago

**Opioid Prescriptions and Addictions  
Are on the Rise in the US**  
*Forbes* – September 16, 2013

**Painkillers Now Cause More Than Half  
of Drug Related Deaths Worldwide**  
*PRWeb* – September 6, 2013

**Attorneys General Call for Tamper-Resistant Versions  
of Generic Prescription Pain Relievers**  
*National Association of Attorneys General* – March 11, 2013

**CVS Cuts Off Docs Who Prescribe  
Too Many Narcotics**  
*NBC News* – August 22, 2013

**FDA Restricts Long-term  
Opioid Use to Combat Abuse**  
*Medscape* – September 13, 2013

**NYC Limits Emergency Department  
Opioid Prescriptions**  
*Emergency Physicians Monthly* – February 8, 2013



# Opioid Crisis



From 1999 to 2016,  
**197,000**  
people died from  
overdoses related to  
prescription  
opioids.

[www.cdc.gov](http://www.cdc.gov)

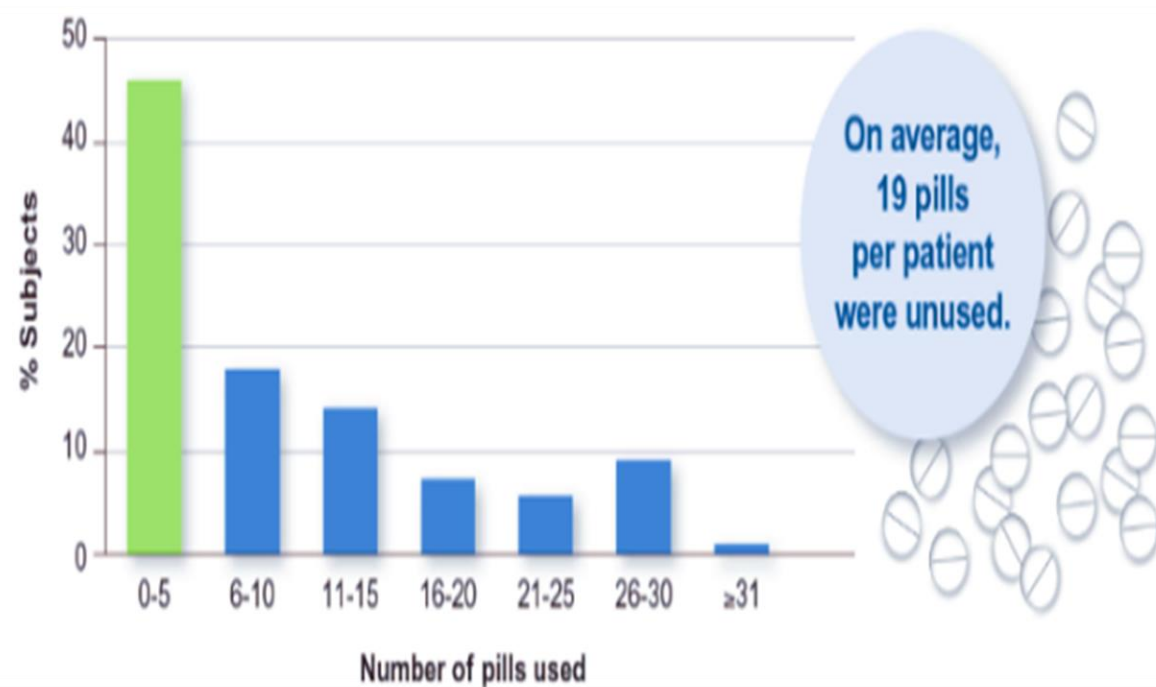


# Over Prescribing Can Lead to Diversion

Excess pills are a readily available source for non-medical use

## Surgeons Tend to Overprescribe

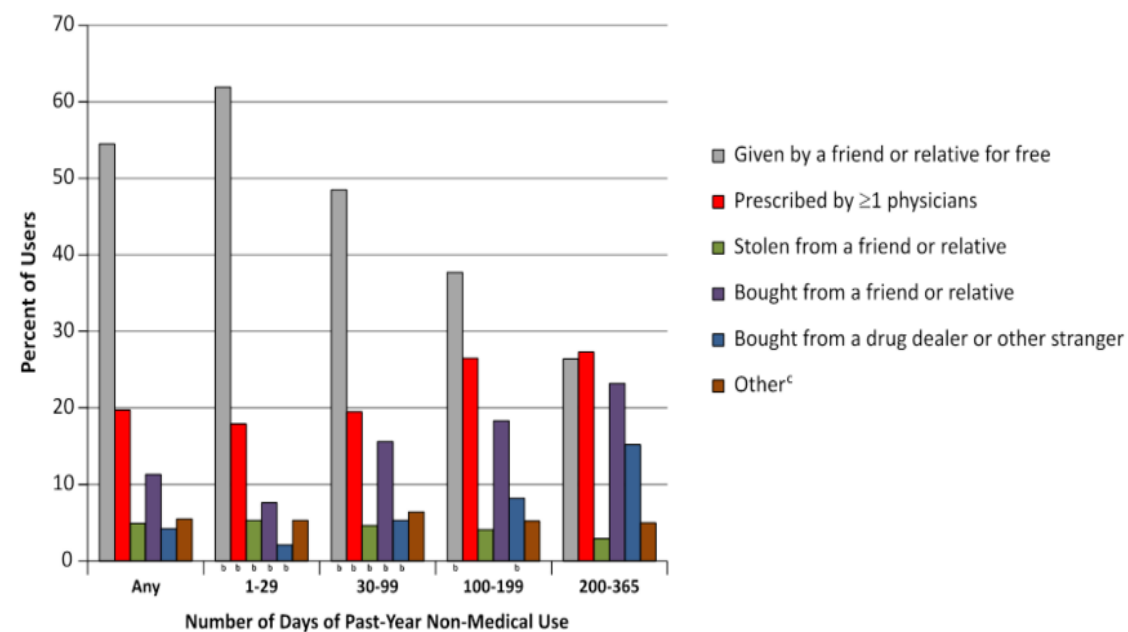
- >50% of pts use  $\leq 5$  pills
- Average Prescription = 30 pills



## Diversion is Common

- Diversion = >70% of Non-Medical Use
- Diversion is non-medical use of legally prescribed prescription medication

Sources of Prescription Painkillers Among Past-Year Non-Medical Users<sup>a</sup>



# Current Practice

## Lower Default Dosing

Partial Mastectomy	5
Laparoscopic Cholecystectomy	15
Open Inguinal Hernia Repair	15
Laparoscopic Inguinal Hernia Repair	15

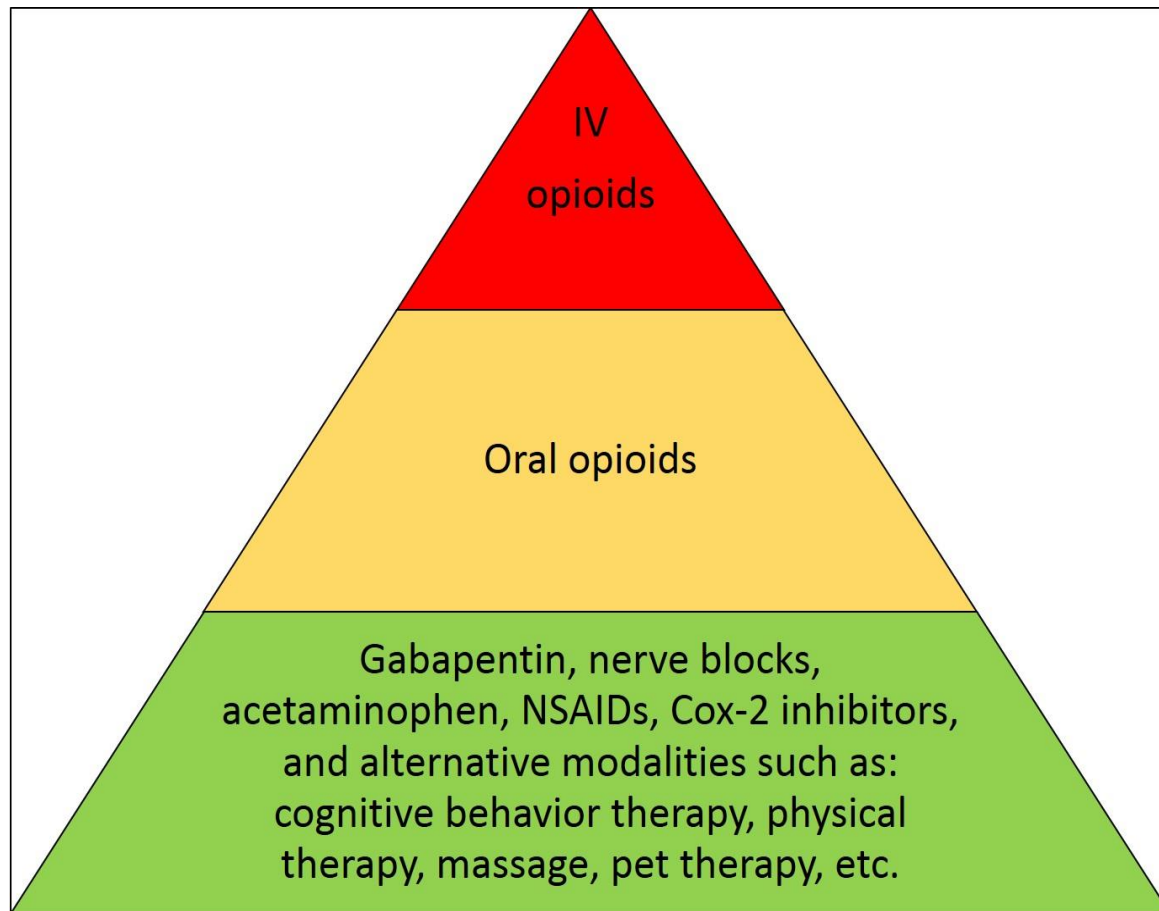
## Make Disposal Easier





# We've Come a Long Way

## Rethink Pain Control



## Patient Education

### Safe and Effective Pain Control After Surgery

[facs.org/safepaincontrol](https://facs.org/safepaincontrol)



#### How will my pain be controlled after my surgery?

- Your surgical team will put together a pain plan for you. The plan tells you how much and when you should take each medication. It will also include:<sup>1,2</sup>
  - **Screening** for current opioid use and risk for misuse.
    - Tell your surgeon if you have chronic pain, depression, ADHD, substance use disorder (SUD) (by you or a family member), or take opioids.<sup>3</sup> These can increase your risk of long-term opioid use and your surgeon will adjust your pain plan to make it safer.
  - **Education** to
    - Use non-opioids first, like ibuprofen (Motrin, Aleve) and acetaminophen (Tylenol)
    - Take the lowest doses of opioids for the shortest time for severe pain
    - Safely store and dispose of any unused opioids



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# Patient Education Works

- Improves patient empowerment
- Decreases patient opioid use
- No decrease in patient satisfaction scores
- Improved adherence to “safe” opioid practice
  - Not sharing medications
  - Not saving medication for future use



# ACS Patient Education Resources

SAFE PAIN CONTROL

## How to Safely Manage Pain After Surgery

Opioid Abuse and Surgery



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# Collaboration: ACS, AAOS, AANS and HCSC

## Lower long-term opioid use following musculoskeletal surgery

- All patients will be directed to a toolkit in their pre-approval letter: <https://pain-reduction.com/toolkit>
- Case managers will provide additional education to high-risk patients that:
  - Sets expectations on the use of non-opioid medications,
  - Maintains function in patients versus a zero-pain expectation,
  - Emphasizes safe opioid storage and disposal to reduce diversion.
- Surgeon outreach and education will also occur through collaborations between ACS, AAOS, and AANS
  - Surgeons are aware of HCSC interventions and can reinforce the education.



# <https://pain-reduction.com/toolkit>


<b>Mild Pain</b> <ul style="list-style-type: none"><li>I hardly notice my pain, and it does not interfere with my activities.</li><li>I notice my pain and it distracts me, but I can still do activities (sitting up, walking, standing).</li></ul>	<b>Non-medication therapies</b> + <b>Non-opioid, oral medications</b> You may take these to control mild to moderate pain when needed
<b>Moderate Pain</b> <ul style="list-style-type: none"><li>My pain is hard to ignore and is more noticeable even when I rest.</li><li>My pain interferes with my usual activities.</li></ul>	<b>Non-medication therapies</b> + <b>Non-opioid medications</b> You may be told to take them regularly throughout the day rather than as needed
<b>Severe Pain</b> <ul style="list-style-type: none"><li>I am focused on my pain, and I am not doing my daily activities.</li><li>I am groaning in pain, and I cannot sleep. I am unable to do anything.</li><li>My pain is as bad as it could be, and nothing else matters.</li></ul>	<b>Non-medication therapies</b> + <b>Around-the-clock non-opioid medications</b> + <b>Short-acting opioids</b> (for a few days) Call your surgeon if your pain continues

**READ**



**Safe and Effective Pain Management After Surgery**

**WATCH**



**TELL US WHAT YOU THINK**



# Risk Identification and Outreach (RIO)

## About Us

RIO is HCSC's **multidisciplinary collaboration** (Behavioral Health, Physical Health, Pharmacy and Clinical Data Technology Groups) that focuses on mining, organizing and visualizing **clinically actionable data** for at-risk member populations – and implementing **clinically appropriate and effective interventions** at both member and provider levels.

### Opioid High-Risk

Reduce potential for opioid-related adverse events

Cohort 1

### Opioid Early Intervention

Reduce the number of members who become long-term opioid users

Cohort 2

### Untreated Depression Pilot

Optimize identification and treatment for members with depression.

Cohort 3

# Key Areas of Collaboration

## Pharmacy

PRIME referrals  
Claims status support  
Opioid pharmacy utilization  
Medication management oversight  
Opioid Lock-in Process  
Outlier Opioid Prescriber Program



## Behavior Health Case Management

Addressing member behavioral health and/or substance use needs



## Physical Health Case Management

Addressing member physical health needs



**RIO**  
Key Areas of  
Collaboration

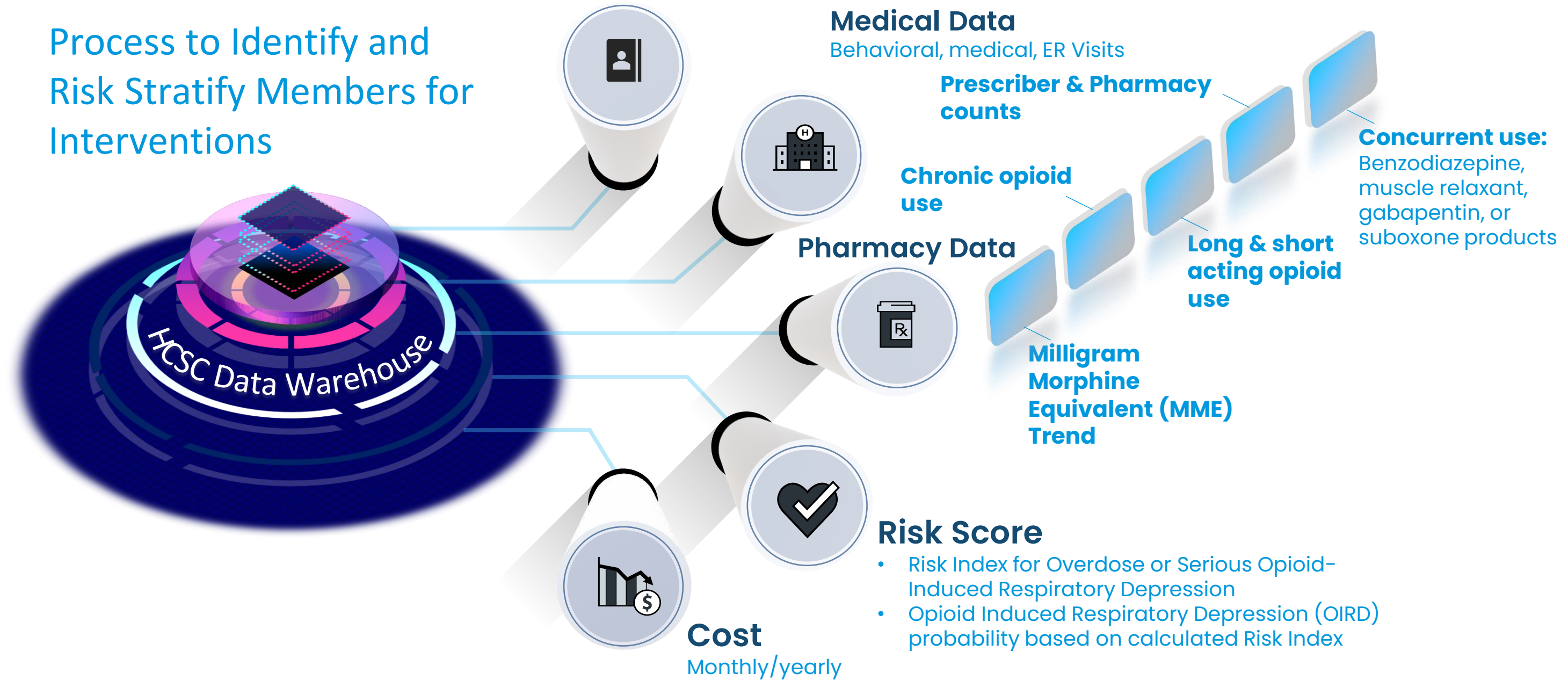
## Data Science and Analytics

Predictive Modeling  
Program Evaluation  
Outlier Opioid Prescriber Program



# Data Driven

Process to Identify and Risk Stratify Members for Interventions





# RIO Opioid High Risk (Cohort 1)

Go-live date: July 1, 2019



## Member Population

At high risk for opioid-related adverse event due to being on opioid prescriptions with high morphine milligram equivalent (MME), dangerous combinations and/or multiple providers

## Member Outreach

Robust member education

- Safer alternatives for pain management
- Narcan (Naloxone) education
- Safe medication disposal
- Risks and side-effects of opioids
- Pain management referrals (if needed)
- Various needs identified during assessment

## Provider Outreach

- **Low touch** - Letter outreach including member pharmacy claims data to encourage provider to evaluate the information for appropriate treatment
- **High-Touch** - Phone outreach by RIO Medical Director to provider(s) for peer-to-peer engagement and collaboration



## Goal

*Reduce potential for opioid-related adverse events*

# RIO Opioid High Risk Cohort Evaluation (Preliminary Results)

## SIGNIFICANT FINDINGS

## IN-GROUP ANALYSIS

### DAS evaluation model comparing:

1. RIO engaged members
2. RIO non-engaged members  
(UTR/refusals)
3. Matched control population

- **Nearly a 2-fold increase in use of Suboxone and Narcan**
- **Increased outpatient BH and SUD professional visits**
- **Limitations -- Matching**

- **Three distinct tiers (High MME, Mid MME, Low MME)**
- **Significant decrease in average daily MME in the High MME group**
- **Significant decrease in the number of unique opioid prescribers in the Low MME group**

BH – Behavioral Health  
SUD – Substance Use Disorder  
MME – Morphine Milligram Equivalents

# OUTLIER OPIOID PRESCRIBER PROGRAM OVERVIEW

Go-live: September 2020



Designed to be **educational**, not punitive

- Measures provider **opioid-prescribing patterns** by calculating metrics such as morphine equivalent dosage (MED), days supply, and dangerous combinations



Utilizes **anomaly detection** to identify outlier prescribers across multiple dimensions



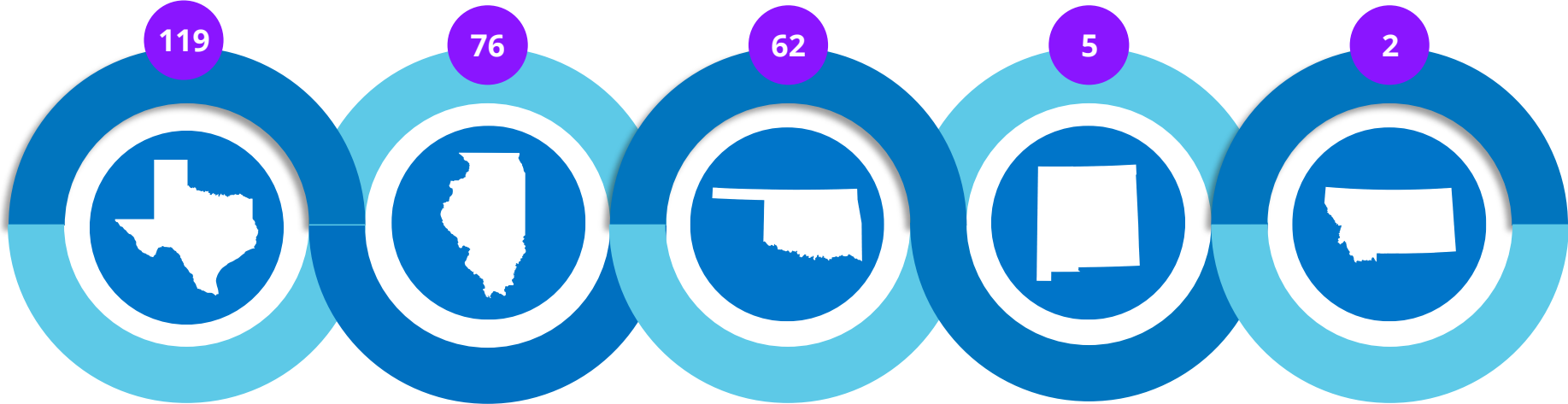
Our clinicians can interact with internal **RADAR tool** to easily interpret provider **insights**

- Collaboration with Provider Network Data Science (PNDS)



Outreach to outlier providers upon request

**262**  
Providers Mailed  
(through 6/23)



# OUTREACH OVERVIEW

Go-live date: September 1, 2020

## TARGET AUDIENCE

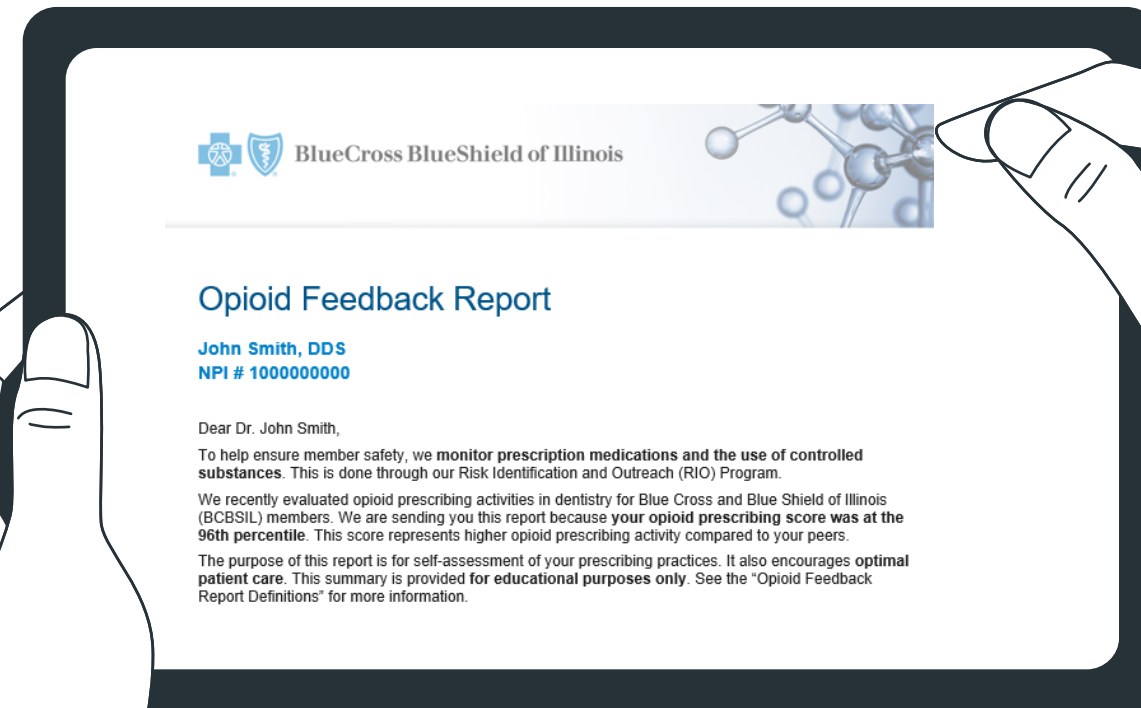
Providers exhibiting **outlier** opioid-prescribing behavior compared to **peers** in the same specialty & state. Initial outreach focused on Family Practice & Internal Medicine.

## PROVIDER OUTREACH

Educational outreach letters to outlier providers. The letter provides providers with insights on their prescribing patterns, tips for managing pain, **encourages self-assessment**, and provides educational resources. A feedback response form allows interaction with the RIO team.

## GOAL

Reduce opioid overprescribing in order to reduce risk of opioid-related adverse events.



# RIO/ACS Collaboration

Go-live date: 9/5/2023



## Member Population

Undergoing total hip arthroplasty, total knee arthroplasty, shoulder arthroplasty or laminectomy

### Member Outreach

**Low Touch** - Letters to all targeted members. The letter provides members with link to ACS website: tips for managing pain, avoiding opioid-related complications and safe medication disposal.

**High Touch** - Targeted Case Manager outreach to members with increased risk for becoming long-term opioid users. CMs will complete ACS survey with patient.

### Provider Outreach

**High-Touch** - Phone outreach by RIO Medical Director to provider(s) for peer-to-peer engagement and collaboration



## Goal

*Reduce* the number of members who become long-term opioid users (new, persistent post-op)

# Goals and Objectives

1. Assess the impact of opioid patient education program on post-operative opioid utilization for members undergoing targeted surgical procedures.
2. Identify patterns associated with new, persistent post-operative opioid utilization.
3. Assess provider engagement through collaboration with ACS

Approval for study have gone through IRB as well as HCSC Privacy and Legal Services. De-identified data will be shared with and analyzed by ACS with an end goal to improve quality of care.

## **THANK YOU and Contact Info**

If you have an HCSC member (has a BCBSTX, BCBSIL, BCBSOK, BCBSNM, or BCBSMT plan) that you feel could benefit from Case Management support email us at:

[RIO@cbstx.com](mailto:RIO@cbstx.com)

# Polling Questions



# Perioperative Interventions

- Patient Selection
  - Treatment algorithm
  - Pre-existing conditions
- Patient education
  - Opioid use education
  - Expectation management
- Perioperative multi-modal regimen

# AAOS Resources



## For Professionals

### Quality Programs and Guidelines:

- [Pain Alleviation Toolkit](#) was developed to offer clinicians the resources needed to support and help their patients. The toolkit includes opioid prescribing guidelines, nonopioid alternatives for pain management, patient education materials on opioid use and addiction, and resources for healthcare providers seeking to treat patients with an opioid disorder. It also includes tools for assessing and managing patient pain and information on how to talk to patients about pain management and opioid use.
- [The Clinical Practice Guideline for Pharmacologic, Physical, and Cognitive Pain Alleviation for Musculoskeletal Extremity/ Pelvis Surgery \(2021\)](#)
- [Appropriate Use Criteria for Pharmacologic, Physical, and Cognitive Pain Alleviation for Musculoskeletal Extremity/ Pelvis Surgery \(2021\)](#)

### Webinars:

- Opioid Use Disorder Management for Orthopaedic Surgeons
- How to Manage a Chronic Pain Patient Requiring Orthopaedic Surgery
- AAOS Combatting the Opioid Crisis: Evidence-Based Pain Management and Evidence Based Treatment

### Publications:

- JAAOS
- AAOS Now

# AAOS Resources

APPROPRIATE USE CRITERIA: PHARMACOLOGIC, PHYSICAL, AND COGNITIVE PAIN ALLEVIATION FOR MUSCULOSKELETAL EXTREMITY/PELVIS SURGERY (2021)

Endorsed by: SOMOS, OTA

### INDICATION PROFILE

**Body Location**

Upper Extremity

Lower Extremity/Pelvis

**Injury Severity/Type**

Minor/Moderate

Major

**Pain Intensity**

None/Mild

Moderate

Severe

**Magnitude of Limitations**

Minor/Moderate

Major

**Degree of Energy/Polytrauma**

Low Energy

High Energy

**SUBMIT**

### PROCEDURE RECOMMENDATIONS

### INDICATION PROFILE

**Body Location** ⓘ

Upper Extremity

Lower Extremity/Pelvis

**Injury Severity/Type**

Minor/Moderate

Major

**Pain Intensity**

None/Mild

Moderate

Severe

**Magnitude of Limitations**

Minor/Moderate

Major

**Degree of Energy/Polytrauma**

Low Energy

High Energy

**SUBMIT**

### PROCEDURE RECOMMENDATIONS

<input checked="" type="checkbox"/>	Cognitive Strategy	8
<input checked="" type="checkbox"/>	NSAID/Acetaminophen	9 +
<input checked="" type="checkbox"/>	Physical Strategy	9 +
<input checked="" type="checkbox"/>	Exercise	7 +
<input type="checkbox"/>	Regional analgesia	4 +
<input checked="" type="checkbox"/>	Opioids/Tramadol	3 +
<input checked="" type="checkbox"/>	Anti-depressants	2 +
<input checked="" type="checkbox"/>	Gabapentinoids	3 +
<input checked="" type="checkbox"/>	Ketamines	1 +

# AAOS Resources

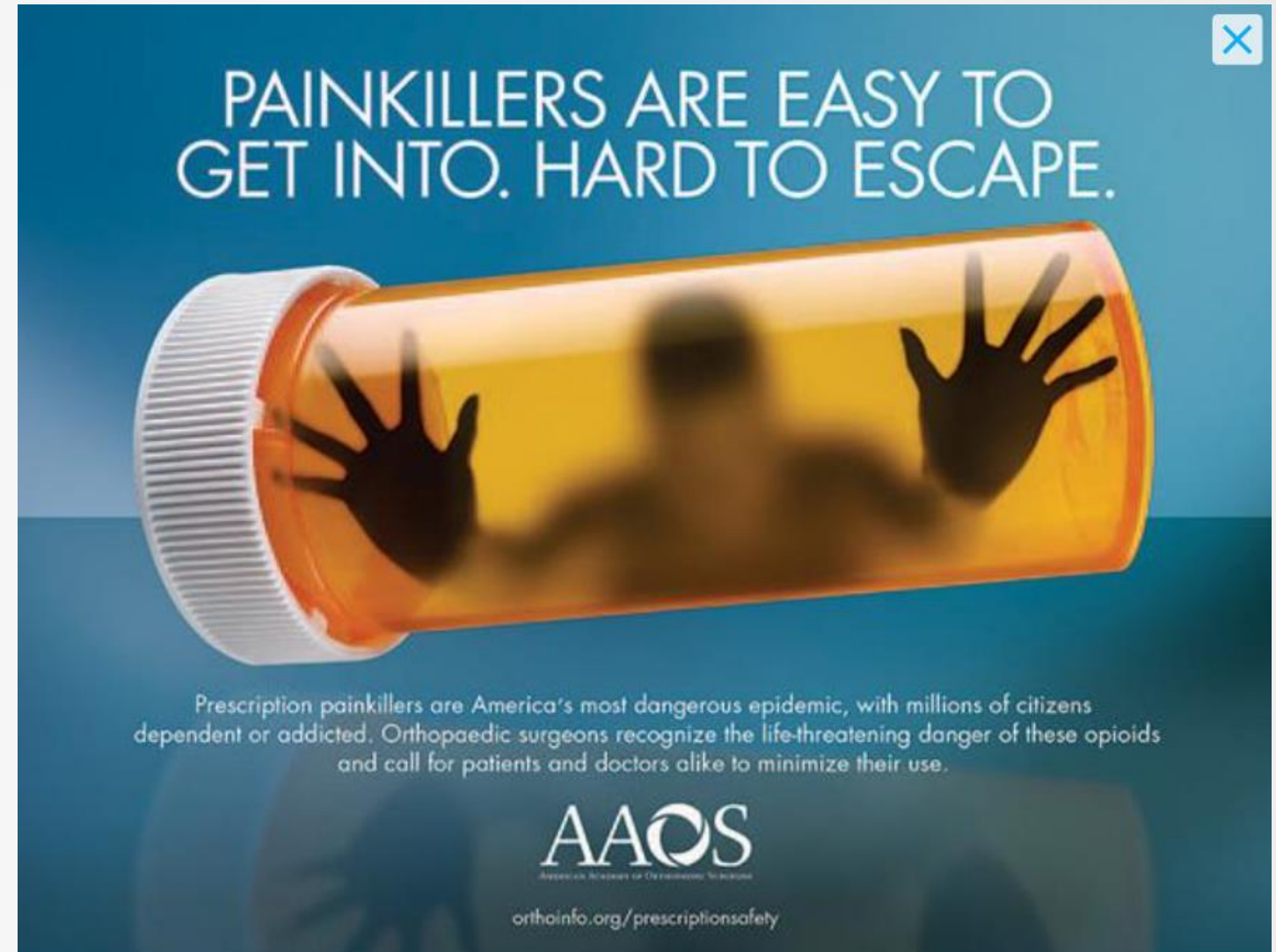
## For Patients

### Publications:

- [Alternative Methods to Help Manage Pain After Orthopaedic Surgery](#)
- [September is Pain Awareness Month: Orthopaedic surgeons offer tips for safely managing pain, disposing of prescription pain medications and minimizing opioid use](#)

### Web Information:

- [Prescription Drug Safety in Orthopaedic Surgery](#)
- [Safe Use, Storage, and Disposal of Opioid Medications](#)
- [Pain Relief Video](#)



The AAOS public service campaign "Painkillers Are Easy to Get Into. Hard to Escape." highlights that AAOS recognizes the dangers of opioid use and abuse.

Dr Adogwa's slides

# Polling Questions

# Opioid Sparing Pain Control Program

## Evaluating the Effectiveness of a Safe Pain Control After Surgery Patient Education Risk Reduction Program

American College of Surgeons  
American Academy of Orthopedic Surgeons  
American Association of Neurologic Surgeons  
Health Care Services Corporation (Blue Cross Blue Shield)

Kathleen Heneghan PhD, MSN, RN, FAACE

Assistant Director Patient Education Programs

Tarra Barot PhD

Manager Patient Education and Safe Pain Control Program

American College of Surgeons



American College  
of Surgeons

# IMPLEMENTATION

## Evaluating the Effectiveness of a Safe Pain Control After Surgery Patient Education Risk Reduction Program Protocol #Pro00055407

1. Complete the survey – tell us current practice and what you need – 3-5 minutes.
2. Register if you want CME Credit
3. Use the guidelines
4. Review and Use the Patient Education Materials
  1. Website
  2. Print
  3. Office Poster
  4. Share with Office Staff for Reinforcement
5. Utilize the Case Managers if applicable.



# Complete the Survey

## Survey Link

<https://redcap.link/h8y79z3c>



- No identifiers unless want resources and comes to ACS Staff only.
- Request State and Zip Code

## Location By State

State	Opioid Prescribing Rate per 100 Americans
Illinois	40.2
Montana	46.1
New Mexico	40.5
Oklahoma	59.3
Texas	37.9

Table 1. Opioid Dispense Rate (CDC, 2021)

AVERAGE DAILY AMOUNT 45.3 MME  
CDC RECOMMENDS NARCAN OVER 50MME

## Location By Zipcode

### Counties with Higher Prescribing

- Generally smaller cities or larger towns
- Higher percentage of white residents
- Higher number of dentists and primary care physicians per capita
- More people who are uninsured or unemployed
- More residents who have diabetes, arthritis, or a disability<sup>1</sup>

[Pain Management Webinar | ACS \(facs.org\)](#)

To obtain 1 hour of CME, you will have to log in to [learning.facs.org](#) (available Aug 30) and pay a processing fee of \$10 and complete post-test and evaluation. Will support state requirements.

## Program Title

**ACS, AAOS, AANS and HCSC Execute a Pain Control Patient Education Study.**

**You are able to go directly to the post test.**

The screenshot shows the ACS (American College of Surgeons) website interface. At the top left is the ACS logo. On the right is a 'Login' button. Below the logo is a navigation bar with 'ACS Store', 'Products', and 'Courses'. The main heading is '/ Find a Product'. A search bar contains the text 'pain'. To the right of the search bar are filters for 'Course', 'By Subject/Topic', 'Sort', and a page number '6'. Below the search bar, a product listing is shown with a thumbnail image of a person, the title 'ACS, AAOS, AANS and HCSC Execute a Pain Control, Patient Education Study', and the price '\$10.00 (Price includes Domestic USA shipping only)'. A 'View details' link is also present.

# Register for CME

# USE THE GUIDELINES

## CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022

*Recommendations and Reports* / November 4, 2022 / 71(3);1-95

Deborah Dowell, MD<sup>1</sup>; Kathleen R. Ragan, MSPH<sup>1</sup>; Christopher M. Jones, PharmD, DrPH<sup>2</sup>; Grant T. Baldwin, PhD<sup>1</sup>; Roger Chou, MD<sup>3</sup> ([VIEW AUTHOR AFFILIATIONS](#))

### [CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022 | MMWR](#)



Lawal (2020) reported less than 13% of surgeons have a pain protocol for patients who are opioid dependent (Lawal, Gold, Murthy, & etal, 2020).

An ACS survey in 2020 (n=257) found that only 30% of surgeons were using a standardized approach or guideline for patients with opioid use disorder. (Burgess, Heneghan, Baort & Stulberg, 2020)

# Patient Education

## Use the Website

Safe Pain Control After Surgery About Search

Welcome! Your surgical team cares about your best recovery, which includes how to safely manage your pain after surgery. Please read, watch and learn ways to manage pain that keeps you moving and helps you heal. Then let us know you did. Talk to your doctors about any questions you may have.

**READ**

**WATCH**  
Safe and Effective Pain Management After Surgery

**TELL US WHAT YOU THINK**

Self-care & Prevention Forms / Survey / Other

SURGICAL PATIENT EDUCATION PROGRAM  
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ACS AMERICAN COLLEGE OF SURGEONS

Surgeon Login

[Safe Pain Control After Surgery of - Patient Education \(pain-reduction.com\)](http://pain-reduction.com)

# Patient Education Use the Poster

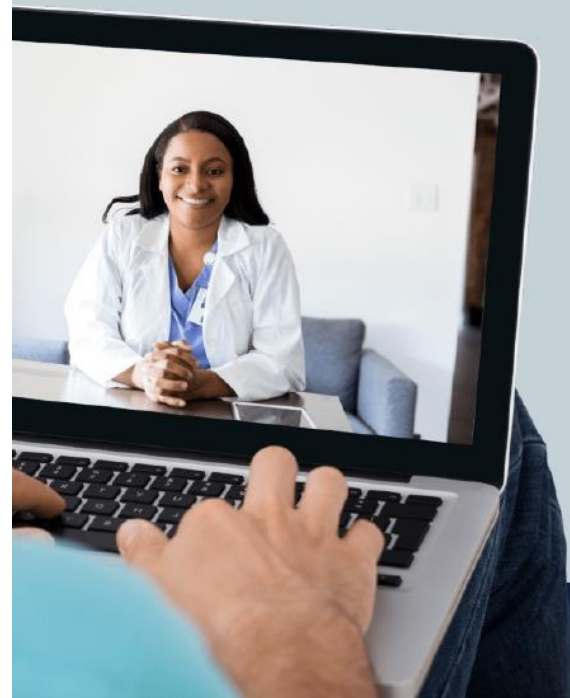
## *Safe* Pain Control After Surgery

Read | Watch | Tell us what you think

Learn ways to manage pain that  
keeps you moving and helps you heal

[www.pain-reduction.com](http://www.pain-reduction.com)

Scan the QR code to view the website



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EDUCATION PROGRAM  
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**ACS** AMERICAN COLLEGE  
OF SURGEONS

# Patient Education Use the Brochures Reinforce Key Content

Be informed about how you can work  
with your surgical team to **safely manage your pain.**

Your surgical team will work with you to:

- **Screen** for current opioid use and risk for overuse
- **Use alternatives** to opioids whenever possible
- **Educate** you about:
  - Using the lowest dose of opioids for the shortest amount of time
  - Safely getting rid of any unused opioids
  - Knowing the signs of opioid overdose



From the operating room to home—your surgical team cares about your best recovery.

No Charge – Just Pay Shipment

[Safe and Effective Pain Control After Surgery, Adult Brochure | ACS \(facs.org\)](#)



# Safe and Effective Pain Management After Surgery

Quality  
Improvement

- **ADD A LINK TO YOUR WEBSITE**
- Add a banner to your website that links to [painreduction.com](https://painreduction.com).

# Data Analysis

- Demographic data (age, gender, location (zip code)).
- Pharmacy claims data (pre-surgical opioid use, 30, 60 and 90-day opioid use post-surgery, high-risk medication filled (30-day pre and 30-60 and 90-day post-operative benzodiazepines, muscle relaxants, anti-depressant, methadone, buprenorphine, and ADHD medication – stimulant and non-stimulant use)
- Post-operative services (home care aid, home care nurse visit, PT visits, additional MD visits or calls, emergency room visits)
- Discharge location – rehab, subacute rehab,
- Diagnosis association with the procedure
- Co-morbidities that could affect pain control including depression, alcohol/substance use, anxiety, ADHD, bipolar, tobacco use, marijuana use (ICD10 coding), overweight/obese
- RIOSORD – Risk of opioid related death score
- ER visits/hospitalizations 3 months pre and 3 months post
- Non-eligible dollars PMPM



Thank You  
[kheneghan@facs.org](mailto:kheneghan@facs.org)

Surgical Patient Education

[www.surgicalpatienteducation.org](http://www.surgicalpatienteducation.org)

[Safe Pain Control Resources for Medical Professionals | ACS \(facs.org\)](#)





Questions