Quality Improvement Approach to Reduce Opioids Prescribed at a Pediatric Institution and Improve Opioid Safety Education to Patients and Families

Sonya Sebastian, PharmD, BCACP
Department of Pharmacy

Sharon Wrona, DNP, RN-BC, PNP, PMHS, AP-PMN
Comprehensive Pain & Palliative Care Service
Objectives

• Provide background on the opioid epidemic and the impact on the pediatric population

• Describe creation of an Opioid Safety Task Force in a healthcare setting

• Share outcomes with opioid safety Quality Improvement projects and cultural changes at Nationwide Children’s
**Opioid Crisis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Overdose Deaths</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>2347</td>
</tr>
<tr>
<td>2014</td>
<td>2744</td>
</tr>
<tr>
<td><strong>2015</strong></td>
<td><strong>3310</strong></td>
</tr>
<tr>
<td>2016</td>
<td>4329</td>
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</table>
Morphine milligram equivalents (MMEs) of opioids prescribed per capita in 2015

<table>
<thead>
<tr>
<th>Opioid prescribing measures</th>
<th>Decrease (%)</th>
<th>Stable (%)</th>
<th>Increase (%)</th>
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</thead>
<tbody>
<tr>
<td>MME per capita</td>
<td>49.6</td>
<td>27.8</td>
<td>22.6</td>
</tr>
<tr>
<td>Overall prescribing rate</td>
<td>46.5</td>
<td>33.8</td>
<td>19.6</td>
</tr>
<tr>
<td>High-dose † prescribing rate</td>
<td>86.5</td>
<td>6.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Average daily MME per prescription</td>
<td>72.1</td>
<td>25.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Average days’ supply per prescription</td>
<td>1.1</td>
<td>25.4</td>
<td>73.5</td>
</tr>
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</table>

https://www.cdc.gov/mmwr/volumes/66/wr/mm6626a4.htm#F1_down
How did we get here?
Neonatal Abstinence Syndrome

- Baby enters withdrawal upon birth
- 150 – 200 infants with NAS treated per year
- PFK data - 67% increase in NAS admits per 100 births since 2011
- 80 step protocol – clinical pharmacist consultation
Ohio Foster Care Children

23% increase overall; 13% increase in 15 months
Assessment of parent/caregivers

Published in final edited form as:  

**Understanding the Diverse Needs of Children whose Parents Abuse Substances**

Jessica M. Solis, Julia M. Shadur, Alison R. Burns, and Andrea M. Hussong
Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3270 USA

So why do we need to assess the parent/caregiver question about themselves?
Poison Center Calls

U.S. Poison Control Centers Receive 32 Calls a Day About Children Exposed to Prescription Opioids

Researchers calling for changes to prescribing practices, increased education about safe storage at home

Columbus, OH - 3/20/2017
IT DOES NOT HAPPEN BECAUSE THEY WANT TO BECOME AN ADDICT!
MATA at NCH

- Medication Assisted Treatment of Addiction (MATA) Clinic at NCH
- Provides outpatient opioid substitution therapy for opioid dependent adolescents
  - buprenorphine/naloxone (BUP/NAL)
- ~ 60 active patients
- Approximately 50% from Franklin County, 50% from other counties within central Ohio
- Average age is 19 years old
- Actively engaged in drug treatment program
FIGURE 1. Retention rate over time of opioid-dependent adolescents and young adults receiving outpatient buprenorphine/naloxone therapy (N = 103).
Tips to Improve Outcomes

• Welcome patients
• Minimal requirements to start
• Truthfulness over perfection
• Motivational interviewing
• Contingency management
  ✓ Decreasing BUP dose for chronic relapses or failure to engage in behavioral therapy
• Incentive programs
• Integrated care
FIGURE 1. Retention rate over time of opioid-dependent adolescents and young adults receiving outpatient buprenorphine/naloxone therapy (N = 103).
Preventing Harm and Addiction
Pain relief

There is a mismatch between the amount of opioids needed to treat pediatric acute pain, with children using less than 50% of prescribed opioids.

- The leading sources of prescription opioids among adolescent nonmedical users are from their peers and from their own previous prescription opioids.

- Leftover prescription opioids from previous prescriptions account for a substantial source of nonmedical use of prescription opioids among high school seniors.

- 8 out of 10 adolescents who report misusing prescription opioids report that their access to these drugs comes from leftover prescriptions from friends and family members.

Opioid Safety Initiative Journey
Opioid Safety Taskforce

- ED/UC
- ENT
- Gen Surgery
- Heme/Onc
- Neurology
- Orthopedics
- Pain Service
- Palliative Care
- Pharmacy
- Primary Care
- Rheumatology
- Sports Medicine
- Urology
- Chief Residents
- Community Education
- Marketing
- QI

Sharon Wrona, DNP, PNP
Administrative Director, Comprehensive Pain Services

Erin McKnight, MD, MPH
Section of Adolescent Medicine
Prescriber Pre-survey

Do you talk with patients and families about locking up medications?

- Yes - all patients on opioids or controlled substances: 22.1%
- Yes - if I have a concern for diversion: 19.6%
- Yes - give a resource to purchase a lock box: 0.7%
- No: 58.7%

Do you talk with patients and families about how to dispose of unused medications?

- Yes: 76.8%
- No: 23.2%
Why This Project at NCH?

We are contributing to the opioid epidemic in our communities

• <25% of Prescribers and Nurses at NCH discuss locking up and disposal of opioids
• No formal process for opioid safety education
• Post op appendectomy patients reported using only ~3 doses (30%) of home going opioid prescribed for pain
NCH Opioid Safety Initiatives

Nationwide Children’s Hospital started an Opioid Safety Task Force in January 2016 to look at ways we can improve opioid prescribing and education at NCH.

The area of focus for the task force are:

- **Prescribing practices**
  - Do our patients need as much medication as we are prescribing them?
- **Improve Education** about pain management and opioid use
  - Prescribers
  - Nurses
  - Patients and families
- Opportunities to educate about **safe storing and disposal** of medications (including opioid)
Acute Pain and Opioid Prescribing
What we found on our journey

• Were we prescribing more home going opioids than needed to effectively treat acute post operative pain…
NCH Opioid Safety Initiative

NCH prescribing practices over a 12 month period were reviewed.

For each home going script (inpatient and outpatient) there was an average of 25 doses ordered per prescription.

*exclude Hem/Onc Clinics, Pain Service, H11A, H12A/B, Apheresis, BMT Clinic, Aim Team and Palliative Care, Complex Care Clinic, South High PC
NCH Opioid Safety Initiative

The top opioid prescriptions were from 3 units in our hospital.

- Peds Surgery
  - Ruptured Appy Dx

- ENT
  - T & A Dx

- Orthopedics
  - Supracondylar fx and spinal fusion Dx

**Opioid Rx by Discharge Service 2015**

- Pediatric Surgery: 42.1%
- Otolaryngology: 20.7%
- Orthopedic Surgery: 86.1%
- Neurosurgery: 91.3%
- Urology: 95.1%
- Plastic Surgery: 98.6%
- Oral Maxillofacial: 99.9%
- Hospital Pediatrics: 99.2%
- Other: 100%

NOTE: Adjacent bars of the same pattern are statistically equal (p > 0.01). Any differences in height should be considered random.
Opioid Safety Taskforce
Prescribing Initiative

Aim

Decrease the NCH wide* average number of opioid doses per home going opioid prescription by 10% from 25 doses to 22.5 doses by 7/31/2017 and sustain for 6 months.

Improve appropriate opioid prescribing

Key Drivers

Appropriate prescribing practices

Education of professionals

Interventions

Implement a tracking form or online app for Surgical patients to track doses taken

Review data for doses taken with Surgical physicians

E-prescribe opioids in Epic

Implement a decision tree for pain treatment alternatives

Develop a list of prescription drop box sites

*exclude Hem/Onc Clinics, Pain Service, H11A, H12A/B, Apheresis, BMT Clinic, Aim Team and Palliative Care, Complex Care Clinic, South High PC
Zero Hero “Wingman”

NCH has taken the GCOAT guidelines to develop guidelines at NCH for pain management

Opioid Decision Making Tree

1. Pain Assessment
   - Medical history and physical examination
   - Location, intensity, severity, and associated symptoms
   - Quality of pain (somatic, visceral or neuropathic)
   - Psychological factors, personal/family history of addiction

2. Develop a Plan
   - Educate patient and family and develop goals for treatment
   - Discuss risk/benefits of non-pharmacologic and pharmacologic therapies
   - Set patient expectation for the degree and duration of the pain

Goal: Improvement of function to baseline as opposed to complete resolution of pain

Options

Non-pharmacologic Treatment
1. Ice, heat, positioning, bracing, wrapping, splints, stretching
2. Massage therapy, tactile stimulation, acupuncture/acupressure, chiropractic adjustment, osteopathic neuromusculoskeletal medicine
3. Biofeedback
4. Directed exercise such as physical therapy

Non-opioid Pharmacologic Treatment
1. Somatic (Sharp or Stabbing)
   - First Line: Acetaminophen, NSAIDs, Corticosteroids
   - Alternatives: Gabapentin pregabalin, skeletal muscle relaxants, SSRIs/SNRIs/TCA
2. Visceral (Ache or Pressure)
   - First Line: Acetaminophen, NSAIDs, Corticosteroids
   - Alternatives: SNRIs/TCA
3. Neuropathic ( Burning or Tingling)
   - First Line: Gabapentin pregabalin/TCA/SNRIs
   - Alternatives: Anti-epileptics, baclofen, SSRIs, topical lidocaine, block

For more information and patient resources regarding safe opioid usage, visit NationwideChildrens.org/Opioid-Safety.

Opioid Pharmacologic Treatment (in conjunction with non-pharmacological and non-opioid treatment)

<table>
<thead>
<tr>
<th></th>
<th>Acute outside ED</th>
<th>Emergency/UC</th>
<th>Chronic - Non terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete risk screening (e.g., age, pregnancy, high-risk psychosocial environment, personal/family history of substance use disorder)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Checking ORAIS for patients who will receive</td>
<td>x</td>
<td>Mandatory if &gt; 7 days</td>
<td>Consider contacting other provider if being prescribed opioids</td>
</tr>
<tr>
<td>Review Minor Opioid Consent with parent and patient</td>
<td>x</td>
<td>Mandatory if not for surgery</td>
<td>x</td>
</tr>
<tr>
<td>Consider Urine Drug Screen</td>
<td>If positive risk screen</td>
<td>If positive risk screen</td>
<td>Initially if positive risk screen and at least yearly</td>
</tr>
<tr>
<td>Avoid prescribing long acting opioids</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Use caution when prescribing opioids with patients on benzodiazepines and sedative hypnotics or patient know to use alcohol or illegal substances</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Provide the patient with the least potent opioid to effectively manage pain</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Prescribe the minimum quantity needed with no refills</td>
<td>Consider limiting to a 3 day supply</td>
<td>Limit to 3 day supply</td>
<td>x</td>
</tr>
<tr>
<td>Consider Opioid Agreement with patient and family</td>
<td>If more than on script given</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Remind that it is unsafe and unhelpful to give away or sell their opioids</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Transition

Discuss how to safely and effectively wean patient off opioid medication | x | x | x |

Secure and Disposal

Give Opioid Safety Helping Hand | x | x | x |

Discuss proper storage and disposal of opioid medications. Discuss “Seeker” - relatives, friends, neighbors, etc. | x | x | x |

Follow up visit

Ask how many medications used on script | x | x | x |
Ask about disposal of unused medications | x | x | x |
Review Goal of Improving Function and pain tolerance progress | x | x | x |
If pain increases, reassess: | x | x | x |
Pain, consider standardized tool for assessment | x | x | x |
Treatment method | x | x | x |
Context and reason for chronic pain | x | x | x |
Practice Tool Kit

Guidelines for Opioid Prescribing

Opioid abuse and prescription drug abuse is an epidemic throughout the United States. According to the Center for Disease Control, 17.3% of those who died of drug overdoses in 2017 were prescribed opioids. This is why it is important to have a strategy in place for patients who are under opioid therapy.

Adolescents and young adults have been shown to be particularly vulnerable to the misuse of opioids. Some of the reasons include:

- Peak risk at age 16
- Nonmedical use of prescription medications by 12th graders
- Have shown to have a higher substance abuse rate than the general population

There is a mismatch between the amount of opioids needed to treat pain and the amount prescribed.

- Leftover prescription opioids from previous prescriptions
- 8 out of 10 patients who report missing prescription drugs

The Nationwide Children’s Hospital Opioid Task Force

At Nationwide Children’s Hospital, our clinicians have created a physician, nurse practitioner, pharmacist, community health worker, and social worker team to address this issue and to educate prescribing clinicians locally an nationally.

For more information and patient resources, visit NationwideChildrens.org

Guidelines for Opioid Prescribing

Non-pharmacological therapy and non-opioid pharmacological therapy are preferred for chronic pain. Providers should only consider adding opioid therapy if expected benefits for both pain and function are anticipated to outweigh risks. Providers should avoid prescribing of opioid pain medication and benzodiazepines concurrently whenever possible.

Before starting opioids for acute pain and periodically during opioid therapy:

2. When opioids are used for acute pain, providers should prescribe the lowest effective dose of short-acting opioids and should prescribe no greater quantity than needed for the expected duration of pain.
3. Leftover opioids from legitimate prescriptions are a major source of opioid misuse in adolescents.
4. At follow up visits ask about medication use and disposal.
5. Incorporate strategies to mitigate risk including mental health concerns, patient or family risk of addiction.
6. Three or fewer days will usually be sufficient for non-traumatic pain not related to major surgery.

Before starting long-term opioid therapy:

1. Discuss and establish treatment goals, risks, and realistic benefits with your patient.
2. Incorporate strategies to mitigate risk including mental health concerns, patient or family risk of addiction.
3. Review the patient’s history of controlled substance prescriptions to determine whether the patient is receiving excessive opioid dosages or dangerous combinations that put him/her at high risk for overdose.
4. Use urine drug testing before starting opioids for chronic pain and consider urine drug testing at least annually for all patients on long-term opioid therapy to assess for prescribed medications as well as other controlled substances and illicit drugs.
5. Use an opioid agreement with patient and family.
6. Offer or arrange evidence-based treatment for patients with opioid use disorder.

When opioids are started:

1. Prescribe the lowest possible effective dosage
2. Continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
3. Instruct patients and families on Monitoring, Securing, Transitioning, and Disposal.
4. Obtain a Minor Opioid Consent if < 18 years old

Providers should evaluate patients within 1 to 4 weeks of starting long-term opioid therapy or at dose escalation to assess benefits and harms of continued opioid therapy. Providers should evaluate patients receiving long-term opioid therapy every 3 months or more frequently for benefits and harms of continued opioid therapy. If benefits do not outweigh harms of continued opioid therapy, providers should work with patients to reduce opioid dosage and to discontinue opioids when possible.
Generation RX Grant to help

Generation Rx

Since 2009, the Cardinal Health Foundation has supported prescription drug misuse prevention through Generation Rx, created in partnership with The Ohio State University College of Pharmacy.
# of home going opioid Rx per month

<table>
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<tr>
<th>Month</th>
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<th>2016</th>
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<th>2018</th>
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<td>Feb</td>
<td>959</td>
<td>976</td>
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<td>1,059</td>
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<tr>
<td>Mar</td>
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<td>1,076</td>
<td>977</td>
<td>959</td>
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<tr>
<td>Apr</td>
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<td>841</td>
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<td>May</td>
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</tbody>
</table>

*excludes Hem/Onc Clinics, Pain Service, H11A, H12A/B, Apheresis, BMT Clinic, Aim Team and Palliative Care, Complex Care Clinic, South High PC

**Opioid survey to Epic prescribers**
**Ped Surg reduces opioid rx from 10 to 5 doses**
**Opioid Safety Website go-live**
**Rule from Gov. Kasich**
**Limit on opioid rx**

**OARRS e-mail to prescribers**
**Presentation – PGR and SGR**
**ENT analyze/adjust prescribing practices**
**ENT Decision Tree**
**E-prescribe controlled sub**

---

**X-Bar Chart**

**Avg doses/Rx/mo**

**Control Limits**

**Goal(s)**
NCH Wide* Average Number of Opioid Doses per Home Going Opioid Prescription

**30 % reduction**
Hospital Wide Home Going
Opioid Doses Prescribed

Chart Type: Run Chart

*excludes Hem/Onc Clinics, Pain Service, H11A, H12A/B, Apheresis, BMT Clinic, Aim Team and Palliative Care, Complex Care Clinic, South High PC
*excludes Hem/Onc Clinics, Pain Service, H11A, H12A/B, Apheresis, BMT Clinic, Aim Team and Palliative Care, Complex Care Clinic, South High PC
Chronic Pain with Opioid Use
NCH Chronic Pts Average Number of Doses per Home Going Opioid Prescription

<table>
<thead>
<tr>
<th>Month</th>
<th>Avg doses/Rx/mo</th>
<th>Process Stage Mean</th>
<th>Process Stages</th>
<th>Control Limits*</th>
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<td>Sep</td>
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<td>Nov</td>
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<tr>
<td>Feb</td>
<td>134</td>
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Desired Direction
QI data on patient SOAPP®-14Q scores

**SOAPP® 14Q**

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<td>Fifteen</td>
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<tr>
<td>Twenty-four</td>
<td>1</td>
</tr>
<tr>
<td>Thirty-three</td>
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</tr>
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</table>

Total Negative = 222
Total Positive = 59
Total Patients = 281

**Patients Scored >9 SOAPP® 14Q**

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # Patients</td>
<td>20</td>
</tr>
<tr>
<td>No opioids</td>
<td>8</td>
</tr>
<tr>
<td>Problems w/ UDS</td>
<td>11</td>
</tr>
<tr>
<td>Doing well on chronic opioids</td>
<td>1</td>
</tr>
</tbody>
</table>
SOAPP® 14Q – Score 33

0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Often, 4 = Very Often

1. How often do you have mood swings? 0 1 2 Ø 4
2. How often do you smoke a cigarette within an hour after you wake up? Ø 1 2 3 4
3. How often have any of your family members, including parents and grandparents, had a problem with alcohol or drugs? 0 1 2 Ø 4
4. How often have any of your close friends had a problem with alcohol or drugs? 0 1 2 Ø 4
5. How often have others suggested that you have a drug or alcohol problem? 0 Ø 2 3 4
6. How often have you attended an AA or NA meeting? 0 1 2 3 Ø
7. How often have you taken medication other than the way that it was prescribed? not Ø 2 3 4
8. How often have you been treated for an alcohol or drug problem? 0 1 2 3 Ø
9. How often have your medications been lost or stolen? Ø 2 3 4
10. How often have others expressed concern over your use of medication? 0 Ø 2 3 4
11. How often have you felt a craving for medication? 0 1 2 Ø 4
12. How often have you been asked to give a urine screen for substance abuse? 0 1 2 3 Ø
13. How often have you used illegal drugs (for example, marijuana, cocaine, etc.) in the past five years? 0 1 2 Ø 4
14. How often, in your lifetime, have you had legal problems or been arrested? 0 1 Ø 3 4
Opioid Safety Taskforce
Prescribing and Education Initiative

**Aim**

Increase the percentage of patients prescribed chronic opioids that are engaged in a formal Opioid Risk Assessment for abuse/diversion from <5% to 75% by 12/31/2017 and sustain for 6 months.

**Key Drivers**

- Standardization of opioid misuse/diversion assessment
- Standardization of opioid care plan and surveillance based on risk stratification
- Education of patients and families on risks for opioid misuse/diversion
- Proper education of practitioners on risk for opioid misuse/diversion

**Interventions**

- Identify opioid misuse assessment tools to globally implement on patients on outpatient opioids
- Develop Opioid Risk Assessment (low, medium, high) in EPIC
- Develop stratified management protocols based on scored risk assessment
- Monitor practitioners’ compliance with opioid risk stratification management protocols
- Develop monitoring tools to track patients who develop opioid misuse
- Educate practitioners, patients and families on risk for opioid misuse for adolescents and young adults and need to screening
- Educate practitioners on risk assessment and risk stratification opioid management and monitoring
Risk Stratification for Opioid Misuse in Children, Adolescents, and Young Adults: A Quality Improvement Project

Rachel Thienprayoon, MD, MScS, Kelly Porter, MSN, APN, CNP, Michelle Tatz, RN, Marshall Ashby, MPH, MBA, Mark Meyer, MD

BACKGROUND: The Pediatric Palliative and Comfort Care Team (PACT) at Cincinnati Children's Hospital Medical Center (CCHMC) provides opioids to a large population of patients in the ambulatory setting. Before this project, PACT had no reliable system to risk stratify patients for opioid misuse.

METHODS: The global aim was safe opioid prescribing by the palliative care team. The specific, measurable, achievable, realistic, and timely aim was as follows: “In patients who present for follow-up with PACT, we will use the ‘opioid bundle’ to increase risk stratification for opioid misuse from 0% to 90% over 5 months.” The opioid bundle includes a urine drug screen, Ohio Automated Rx Reporting System report, pill count, and screening history for drug abuse and mental health disorders. The setting was multiple CCHMC ambulatory clinics. Participants included all PACT members.

RESULTS: Since implementing the new system, we have increased risk stratification for opioid misuse among outpatients from 0% to >90%. Results have been sustained for 12 months. Key processes have become reliable: obtaining informed consent and controlled substance agreements for all new patients and obtaining the opioid bundle to enable risk stratification in a consistent and timely fashion. A total of 34% of patients have been stratified as high risk, and an additional 27% have been stratified as moderate risk.

CONCLUSIONS: A system to ensure safe opioid prescribing practices to all patients is critical for providers. Identifying key processes and executing them reliably has enabled the palliative care team at CCHMC to risk stratify >90% of patients receiving opioids in the ambulatory setting for opioid misuse.

Prescription drug abuse is a national epidemic. In 2012, 4.9 million Americans admitted to the misuse of pain relievers, making them the second most commonly used illicit substance in the United States. The Centers for Disease Control and Prevention estimate that 44 people die in the United States every day from overdose of prescription painkillers. Palliative care physicians are often responsible for managing pain and other symptoms in patients with cancer and life-limiting diagnoses. Because opioids are the cornerstone of treatment of cancer-related pain, potential patient misuse of prescription medications and national regulatory responses should be of particular concern to palliative care physicians and oncologists. But general pediatricians, pediatric surgeons, and pediatric dentists may also be responsible for providing

Key Driver Diagram (KDD)

Risk stratification for opioid abuse/diversion through use of the “opioid bundle”

Key Driver Diagram (KDD)

Key Drivers

- Care team can easily access updated patient information
- Team is aware of which bundle elements are required for which patient, and when
- Team members can easily and reliably obtain all, correct, bundle elements, for all patients
- Team members aware of risk stratification algorithm and able to easily apply it

Interventions

- Educate team about bundle elements, importance of screening, patient cards, how to complete, clinic huddle
- Informed consent obtained for patients
- Patient ID cards are developed and maintained in a central area of the office
- Clinic Huddle
  1) Interprofessional rounds
  2) Morning: That day’s appointments are reviewed. Bundle checklist and OARRS report given to providers. UDS entered as necessary
  3) Alternatives: Patients reviewed, ID cards updated
- Family screening questionnaires available for patients to complete

Figure 1: Key driver diagram. ID, identification; SMART specific, measurable, achievable, realistic, and timely.
Longer Term Opioid Use

<table>
<thead>
<tr>
<th>Pain Clinic Opioid Misuse Project Definitions</th>
<th>Opioid Risk Level</th>
<th>Opiate Risk Surveillance Plan</th>
<th>Violation Consequences</th>
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<tr>
<td><strong>Opioid Bundle Components</strong></td>
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<td>Complete SOAP-14 Questionnaire/Family Risk Screen/Abuse Risk Screening</td>
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<td>Urine Drug Screen</td>
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<td>Let's Start Talking Minor Consent</td>
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<td><strong>Information to Document on Tracking Spreadsheet</strong></td>
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<td>Date Opioid Bundle Components</td>
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<td>SOAPP Score and Risk Screening</td>
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<td>UDS date and results</td>
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<td>UDS - only for prescribed opioid + THC</td>
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<td>Terminal pt on case by case basis</td>
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<td>UDS - only for prescribed opioid + THC</td>
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<td>UDSs monthly</td>
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<td>OARSs: Every Script</td>
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<td>Pill Count: Monthly w/concerns Peds QL ✕ q visit</td>
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<td>Moderate Risk Surveillance Freq.</td>
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<td>UDSs: Annually</td>
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<tr>
<td>OARSs: Every Script</td>
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<td>Pill Count: Annually w/concerns Peds QL ✕ q visit</td>
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<td><strong>Violation Consequences</strong></td>
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<td>Major Violation</td>
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<td>UDS positive for Marijuana &gt; 3 occasions or non-prescribed schedule meds.</td>
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<td>Opioid medication in UDSs</td>
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<td>Failure to complete UDSs</td>
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<td>OARSs: other opioid prescriber</td>
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<td>Concerning reports from other physicians or pharmacist</td>
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<td>Concerning behaviors around scheduled II meds</td>
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<td>Non-compliant with non-opioid tx/referrals &gt; 2 times</td>
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<td>1. Verbal Warning</td>
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<td>2. Alternative Pain Management</td>
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<td>3. Pain Managed in Clinic</td>
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<td>4. Opioid Taper</td>
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<td>5. Addiction Treatment</td>
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<tr>
<td>Minor Violation</td>
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<td>Failure to bring pill bottle/old patch to visit</td>
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<td>Misses/cancels appointments (2 times in 6 months)</td>
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<td>Failure to provide or abnormal UDSs</td>
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<tr>
<td>Non-compliant with non-opioid tx/referrals &gt; 2 times in 6 months</td>
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<tr>
<td>1. Verbal Warning</td>
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<tr>
<td>2. Alternative Pain Management</td>
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<td>Increase Risk Level</td>
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<tr>
<td>Surveillance Freq. for 6 months</td>
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Longer Term Opioid Use

Preventing Opioid Misuse in the Pain Clinic Patients

- Determined Opioid Necessary for Pain Management

- Opioid Bundle Initiated
  - 1. SOAPP-14 and family bx
  - 2. DARRS
  - 3. Minor Consent
  - 4. PedsQL Completed
  - 5. UDS completed
  - 6. Opioid Agreement

- **Nurse Documents Bundle Components/Risk Level*** on Electronic Tracking Flowsheet and give locked box to family

- RN Communicates visit frequency and surveillance plan based on patient's risk level to Pt.

**PC Follow Up Visits**

- RN Collects Opioid Bundle Information Based on Surveillance Plan.

- RN Communicates visit frequency and surveillance plan based on patient's risk level to Pt.

- Has patient's risk level changed?
  - N
    - No Further Action Required until patient prescribed opioids.
  - Y
    - Did risk level change or an opioid contract violation or change in use?
      - Violation
        - PC Team/RN evaluates patient risk level*** based on opioid consequence matrix
      - Verbal Warning
      - Alternative Pain Management
      - Opioid Compliance Test Completed
      - Test Negative for Rx Opioid
      - Stop Rx Opioid
      - Offer Alternative Pain Management
      - 1st offence Verbal Warning
      - Increase Opioid Risk Level
      - Consider Alternative Pain Management
      - 2nd offence Verbal Warning
      - Opioid Taper
      - Possible addiction treatment assessment

**Minor Violation**

- Failure to bring pill bottle/old patches to visit
  - Call early for Refills or run out early
  - Misses/or opioid appointments (2 times in 6 months)
  - Failure to provide or abnormal opioid UDS
    - UDS continued + THC without Rx
  - Non-compliant with non-opioid by/referrals (2 times in 6 months)

- Verbal Warning
- Alternative Pain Management
- Consider Increasing Risk Level for 6 months
- 2nd Minor Violation

**Major Violation**

- Negative UDS
  - UDS positive for illicit substances

- Implied
  - UDS positive for Marijuana > 3 occasions or non-prescribed schedule meds
  - Opioid medication in UDS, failure to complete UDS
  - DARRS - other opioid prescriber
  - Concerning reports from other physicians or pharmacist
  - Non-compliant with non-opioid by/referrals (2-2 times)

- 1st offence Verbal Warning
- Increase Opioid Risk Level
- Consider Alternative Pain Management
- 2nd offence Verbal Warning
- Opioid Taper
- Possible addiction treatment assessment
# Patient Tracking Sheet

**Minor Violation:**
- Failure to bring pill bottle/old patches to visit
- Call early for refills or run out early
- Misses/cancels appointments (>2 times)
- Failure to provide urine specimen
- Non-compliant with non-opioid tx referrals (2 times)

<table>
<thead>
<tr>
<th>Date</th>
<th>Patient Name</th>
<th>MRN:</th>
<th>Age</th>
<th>Practitioner</th>
<th>Lock Box Given</th>
<th>SOAP Date</th>
<th>SOAPP-14 Score (0-56)</th>
<th>SOAPP Category</th>
<th>&lt; 12 yo or DD Parent screening</th>
<th>sexual abuse or Emotional Abuse</th>
<th>Date UDS</th>
<th>UDS results</th>
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<tr>
<td>4/27/2017</td>
<td>Test</td>
<td>222222</td>
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<td>4/26/2017</td>
<td>5</td>
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<td>&gt;7&lt;9</td>
<td>Moderate</td>
<td>Yes</td>
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**Major Violation:**
- Impaired
- Negative UDS
- UDS positive for illicit substances or non-prescribed schedule II meds
- OARRS - other opioid prescriber
- Concerning reports from other physicians or pharmacist
- Concerning behaviors around scheduled II meds
- Non-compliant with non-opioid tx referrals (>2 times)

<table>
<thead>
<tr>
<th>OARRS Date</th>
<th>OARRS Problem</th>
<th>Pill Count; Early Refill Date</th>
<th>Pill Count; Early Refill Issues</th>
<th>compliant with non-opoid tx referrals</th>
<th>PedsQL Score Physical</th>
<th>PedsQL Score Psych/Social</th>
<th>PedsQL Score School</th>
<th>PedsQL Score Overall</th>
<th>Minor Consent Date</th>
<th>Opioid Agreement Date</th>
<th>Risk Category</th>
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<th>Major Violation</th>
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<td>4/27/2017</td>
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<td>0</td>
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<td>50</td>
<td>75</td>
<td>25</td>
<td>4/26/2016</td>
<td>Moderate</td>
<td>No</td>
<td>Yes</td>
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</table>
Dying at home in pain doesn’t keep relatives from stealing the pills

Nothing seemed to help the patient — and the hospice staff didn’t know why.

They sent home more painkillers for several weeks. But the elderly woman, who had severe dementia and incurable breast cancer, kept calling out in pain.

The answer came when the woman’s daughter, who was taking care of her at home, showed up in the emergency room with a life-threatening overdose of morphine and oxycodone: She was high on her mother’s medications, stolen from the hospice-issued supply.
Impact of Education on Opioid Safety
Nurses Can Make a Difference with our Opioid Epidemic
Assessment and Education is Everyone’s Job
Opioid Safety Taskforce
Prescribing and Education Initiative

Aim

Increase % of pts d/c from H5A/H5B/H10B Rx opioids that receive opioid safety education from 0% in 10/1/2016 to 50% by 7/31/2017 & then increase to 100% by 1/31/2018 & sustain for 6 mon.

Key Drivers

- Proper education of outpatient pharmacy staff
- Proper education of nurses
- Proper education of practitioners
- Proper education of patients and families
- Communication/documentation between team members

Interventions

- Healthcare Providers will use the Zero Hero “Wingman” approach for opioid safety
- Hospital Opioid Safety Website
- NCH Pharmacy filled script – Pharmacy Provides Opioid Safety Education
- Provide patients and families Helping Hand for opioids safety
- Develop Opioid Safety video to support health literacy needs from Helping Hand.
- Provide link to Opioid Safety Helping Hand in pain management order set and D/C navigator
- Document Opioid Safety provided to patient/family on Discharge Navigator/AVS/Teaching Record

Improve overall education to patients/families on opioid safety
Opioid Safety Education for the Nurse

Online 0.5 CE module created for nurses at NCH
How Nurses Can Help

1. To help decrease the number of excess opioids in our community and ensure safe opioid practices.
   – Nurses can use the Zero Hero “Wingman” approach when reviewing opioid prescriptions.
   – Nurses can begin educating patients while in the hospital and at clinic visits.

2. Nurses can help address this significant public health problem by teaching families/patients how to Monitor, Secure, Transition, and Dispose opioid medication.

3. It is essential for nurses to begin educating patients on safe opioid practices as soon as possible in the hospital or at the clinic visit.
Key educational points to remember for opioid education

1. Monitor
2. Secure
3. Transition
4. Dispose
MONITOR

• It is important to instruct individuals to keep a record of when they take their prescribed opioid medication.
• Due to the increase in opioid abuse in our community it is important to be aware of “seekers”. A seeker is someone looking to steal opioid medications.
  – A “seeker” can be a sibling, relative, friend, neighbor, or a stranger.
According to Partnership for Drug-Free Kids, only 20% of prescribers regularly provide education to patients on how to secure & dispose of prescribed controlled substances.

NCH is not any better….but we can be!!!
It is the responsibility of the prescriber, nurse, and pharmacy to ensure patients are properly educated on safe use, storage, and disposal of opioids in order to prevent adverse drug events in patients and others.

**RN pilot sample**
Inpatient NCH

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**Whose responsibility do you feel it is to educate a patient about their opioid medication?**

- Physician prescribing medication: 76.5%
- Nurse: 92.6%
- Pharmacist: 58.8%
SECURE

Do you have your medications secured in a locked location?

Don’t be an unintentional drug dealer.
Understanding how to transition off of opioids is something every patient should be educated on.

- Teach the patient and families they should use non-opioid medications such as acetaminophen and ibuprofen and alternative pain management techniques to help them weaning off of the opioid.
- Teach the importance of use of non-pharmacological pain management modalities.
Treating Pain After Inpatient Surgery

Nationwide Children's Hospital wants to make our patients as comfortable as possible. Having pain is normal after surgery, but there are ways to decrease the pain.

How is pain evaluated?
Sometimes it can be hard to know if pain, anxiety or stress is causing discomfort.

Possible signs of pain are crying, facial cues, leg movement and how easily the patient can be comforted. Parents can also help us understand their own child’s needs. Nurses and doctors use guides called pain scales to measure pain. There are different pain scales that can be used based on the patient’s age. For older children, the pain scale uses visual signs to evaluate pain (see chart below).

Subjective pain scales:

Face! More appropriate for preschool and young school children.

Show me how you feel by pointing to the face:

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<tr>
<td>NO HURT</td>
<td>HURTS LITTLE</td>
<td>HURTS LITTLE MORE</td>
<td>HURTS EVEN MORE</td>
<td>HURTS WHOLE LOT</td>
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Older children and adults can rate their pain on a scale of 0 to 10, with 0 being in no pain and 10 being the worst pain.

What can you do to help?
It is important to take deep breaths and cough from time to time. Blowing bubbles can be fun and help the lungs too. If there is a surgical wound, try splinting the affected area. Splinting is holding a pillow or folded blanket and gently applying pressure over the wound. The patient should cough or take a deep breaths during splinting. Try different positions to decide what is most comfortable. Your nurse can make suggestions about safe positions. It is also important to move while in bed and walk when allowed to get out of bed. Stroking your child’s hands, arms, legs or head may be comforting. Small children may be more comfortable when someone holds them.

Try to distract your child from the pain and make him or her as comfortable as possible. Suggestions include:
- Keep the room quiet and dim the lights
- Play soft music
- Watch a favorite movie or television show
- Read books
- Ask about Child Life Services
- Massage therapy, acupuncture, aromatherapy, hypnosis (ask your nurse about these therapies)
- Bring comfort items from home, such as stuffed animals or a music device with headphones
- Ask your nurse if it is safe to place a warm or cold pad on the area that hurts.

Important words to know:
- IV: Directly into the vein
- PO: By mouth: Once the patient is able to eat or drink
- Epidural Catheter: A small hollow plastic tube that is inserted through and taped to the skin in the middle of the back. It delivers pain medicine to your child. If your child has an epidural catheter, he or she will have decreased or no sensation in the lower body but will most likely be less sleepy than on other pain medicines
- PCA (Patient Controlled Analgesia): A machine with a syringe filled with pain medicine that delivers the medicine through your child’s IV line. It is controlled by your child.
- NCA (Nurse Controlled Analgesia): A machine with a syringe filled with pain medicine that delivers the medicine through your child’s IV line. It is controlled by your child’s nurse.
- CCA (Caregiver Controlled Analgesia): A machine with a syringe filled with pain medicine that delivers the medicine through your child’s IV line. It is controlled by the child’s caregiver.
- Basal and Demand Dosing: These terms relate to PCA, NCA and CCA pumps. A basal dose of pain medicine is a constant, set amount of pain medicine that is given to your child through the pump. A demand dose is a set dose of pain medicine that is given to your child when you, the nurse, or your child presses the button to deliver pain medicine. There is usually a limit to how many times a demand dose will be delivered over a period of time.
- Nerve block: Involves placement of local anesthetic (numbing medicine) around the nerve(s) to numb them for certain procedures. A single shot usually lasts around 12 to 24 hours, which allows the patient to have constant pain relief while still able to move lower legs and begin physical therapy.
- PNC (Peripheral Nerve Catheter): Depending on the type of procedure, your surgeon may choose to place a small catheter (a hollow plastic tube) that gives a continuous amount of numbing medicine over several days (usually 3 to 5 days) next to the nerves. This catheter can be safely removed by the family at home.

How do patients feel after surgery?
Patients may feel tired after surgery. This could be due to stress and side effects of some pain medicines. Other things to look for after surgery:
- Itching
- Constipation
- Upset stomach
- Rash
- Slower breathing

If any of these symptoms, please talk to the child’s nurse or doctor.

What medicines are used to control pain?
There are multiple medicines that may be offered to control pain. IV medicines that your doctor might use to control pain include: acetaminophen, ketorolac or opioids (including morphine, hydrocodone and fentanyl). Some medicines that are given by mouth include acetaminophen (Tylenol), ibuprofen (Motrin/Advil) or opioids (hydrocodone or oxycodone).

Inpatient post-surgical children begin pain management in the hospital with IV pain medicines. The doctor will decide when it is okay to change from IV medicine to oral pain medicine. It is important to note that these medicines are dosed based on your child’s weight. Make sure your child does not take more medicine than prescribed and follows the instructions.

Other Medicines:
- Muscle relaxants: May be given for certain surgeries to relieve muscle spasms (many times described as muscle cramps). Muscle spasms are a pain that epidural cannot control. It is important not to give muscle relaxers at the same time as opioid pain medicines because of the risk for slowed breathing, unless told otherwise by your doctor.

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NCH Post op Pain Handouts & Tracking Form

Treating Pain After Outpatient Surgery

NCH wants to make sure our patients are as comfortable as possible. Having pain is normal after surgery, but there are ways to decrease the pain.

How is pain evaluated?

Pain ratings can be hard to know if pain, anxiety or stress is causing discomfort.

Possible signs of pain are crying, facial cues, leg movement and how easily the patient can be comforted. Parents can help us understand their own child’s needs. Nurses and doctors use guides called pain scales to measure pain. There are different pain scales that can be used based on the patient’s age. For younger children, the pain scale uses visual signs to evaluate pain (see chart below).

Subjective pain scales:

Facies: More appropriate for preschool and young school children.

Show me how you feel by painting the face:

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No hurt</td>
</tr>
<tr>
<td>1</td>
<td>Hurts little bit</td>
</tr>
<tr>
<td>2</td>
<td>Hurts little more</td>
</tr>
<tr>
<td>3</td>
<td>Hurts even more</td>
</tr>
<tr>
<td>4</td>
<td>Hurts whole lot</td>
</tr>
<tr>
<td>5</td>
<td>Hurts worst</td>
</tr>
</tbody>
</table>

Ways that your child might be given medicine:

- **IV:** Directly into the vein
- **PO (by mouth):** Once the child is able to eat or drink

What can you do to help?

It is important for your child to take deep breaths and cough from time to time. Blowing bubbles can be fun and help the lungs too. If there is a surgical wound, try splinting the affected area. Splinting is holding a pillow or folded blanket and gently applying pressure over the wound. The child should cough or take a deep breath during splinting.

Try different positions to decide what is most comfortable. Your nurse can make suggestions about safe positions. It is also important to move while in bed, and walk when allowed to get out of bed.

Try to distract your child from the pain and make him or her as comfortable as possible. Suggestions include:

- Keep the room quiet and dim the lights
- May soft music
- Watch a favorite movie or television show
- Read books

Older children and adults can rate their pain on a scale of 0 to 10, with 0 being no pain and 10 being the worst pain.

Important words to know:

- **Nerve block:** Involves placement of local anesthetics (numbing medicine) around the nerve(s) to numb them for certain procedures. A single shot usually lasts around 12 to 24 hours, which allows the child to have continuous pain relief while still able to move the lower legs and begin physical therapy.
- **P.N.C. (Peripheral Nerve Catheter):** Depending on the type of procedure, your surgeon may choose to place a small catheter (a hollow plastic tube) that gives a continuous amount of medinedicine over several days (usually 3 to 5 days) next to the nerve. This catheter can be safely removed by the family at home.

How do patients usually feel after surgery?

Patients may feel tired after surgery. This could be due to stress and side effects of some pain medicines.

Other things to look for after surgery:

- Fainting
- Convulsion
- Upset stomach
- Rash
- Slow breathing

If any of your child’s experience any of the above, please talk to the child’s nurse or doctor.

What medicines are used to control pain?

There are multiple medicines that may be offered to control pain. Outpatient medicines are given by mouth and generally include acetaminophen (Tylenol), ibuprofen (Motrin/Acetad) or opioids (hydrocodone or oxycodone).

General pre-surgery pain management strategy:

For most children the surgeon will recommend alternating Tylenol and Motrin every three hours for the first two days after surgery. Your child’s surgeon may prescribe an opioid (usually hydrocodone or oxycodone) which is recommended only on an as-needed basis. These medicines can be used in addition to Tylenol or Motrin, but they should only be given if your child is still in pain while using the alternating Tylenol and Motrin schedule.

Your child might be prescribed an opioid, that is a combination product containing acetaminophen, including hydrocodone/acetaminophen (Norco) or oxycodone/acetaminophen (Percocet). For children who are prescribed these as-needed pain medicines, give the medicine in place of the acetaminophen when needed. This is only necessary if you feel that your child’s pain is uncontrolled on the alternating schedule of Tylenol and Motrin AND you were prescribed a combination opioid. In summary, do not give a combination opioid within 6 to 8 hours of giving your child Tylenol.

Many times ketorolac (also known as Triada), which is an IV medication similar to Motrin, is given during the surgery to help with pain. If this happens, the first dose of Tylenol should not be given until three hours after the ketorolac was given. If ketorolac was not given, the first dose of Tylenol should be given as soon as you are home or as instructed by hospital staff.

48 hours after the surgery, Tylenol and Motrin should no longer be given scheduled every three hours, and should be only given as needed for pain.

The next page is a chart with all of this information for you to keep track of what medication you have given your child and when the next dose is due. Your child’s nurse or healthcare provider should discuss this with you prior to leaving the hospital.

It is important to note that these medicines are dosed based on your child’s weight, so make sure to see that your child does not take more medicine than prescribed and that he or she follows the instructions.

Other Medicines:

- **Muscle relaxers:** May be given for certain surgeries to relieve muscle spasms (many times described as muscle cramps), which is a pain that opioids generally cannot control. It is important, unless your doctor tells you to, not to give muscle relaxers at the same time as opioid pain medicines because of the risk for slowed breathing.
- **Stool softeners:** Recommended in patients taking opioids because opioids increase the risk of developing constipation. Your doctor may give you instructions or prescribe a stool softener for your child. While your child is taking a stool softener, it is important to make sure that he or she is drinking plenty of fluids to prevent stomach cramping.

---

Nationwide Children’s Hospital

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# NCH Post op Pain Handouts & Tracking Form

## Pain Medicine Administration Chart

**Opioid: Drug Name:**

- **Dose:** _________ mL (Liquid) OR _________ tablet AS NEEDED every _________ hours
- *ONLY give opioid if your child's pain is still uncontrolled with the rotation of Tylenol and Motrin*

## Post-op Medicine Chart

PLEASE use this table to write down when medicines are given.

**Please give _________ mL of Children's Tylenol (Children's Acetaminophen 100mg/5 mL)**
**OR**
**Please give _________ tablets of oral Tylenol (Each tablet contains _________ mg of acetaminophen)**

**Please give _________ mL of Children's Motrin (Children's Ibuprofen 100mg/5 mL)**
**OR**
**Please give _________ tablets of oral Motrin (Each tablet contains _________ mg of ibuprofen)**

### Day of Surgery

<table>
<thead>
<tr>
<th>Dose Number</th>
<th>Medication</th>
<th>Check-off</th>
<th>Time Given</th>
<th>Opioid as needed ONLY Drug:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tylenol</td>
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<tr>
<td>2</td>
<td>Motrin</td>
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</tr>
<tr>
<td>3</td>
<td>Tylenol</td>
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</tr>
<tr>
<td>4</td>
<td>Motrin</td>
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</tr>
<tr>
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<td>Tylenol</td>
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</tr>
<tr>
<td>6</td>
<td>Motrin</td>
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<tr>
<td>7</td>
<td>Tylenol</td>
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<tr>
<td>8</td>
<td>Motrin</td>
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</table>

### Next Day After Surgery

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<th>Dose Number</th>
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<th>Check-off</th>
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<tbody>
<tr>
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<td>Tylenol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Motrin</td>
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</tr>
<tr>
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<td>Tylenol</td>
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<td>4</td>
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</tr>
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<td>5</td>
<td>Tylenol</td>
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<tr>
<td>6</td>
<td>Motrin</td>
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</tr>
<tr>
<td>7</td>
<td>Tylenol</td>
<td></td>
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<tr>
<td>8</td>
<td>Motrin</td>
<td></td>
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</tr>
</tbody>
</table>

**After 48 Hours: Stop regular or scheduled Tylenol and Motrin and give either as needed**

### 2nd Day after Surgery

<table>
<thead>
<tr>
<th>Medication</th>
<th>Time Given</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Motrin</td>
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<td>Opioid</td>
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### 3rd Day after Surgery

<table>
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<th>Medication</th>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>Motrin</td>
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</tr>
<tr>
<td>Opioid</td>
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</tr>
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### 4th Day after Surgery

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<thead>
<tr>
<th>Medication</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tylenol</td>
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</tr>
<tr>
<td>Motrin</td>
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</tr>
<tr>
<td>Opioid</td>
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### 5th Day after Surgery

<table>
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<tr>
<th>Medication</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tylenol</td>
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</tr>
<tr>
<td>Motrin</td>
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<tr>
<td>Opioid</td>
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### 6th Day after Surgery

<table>
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<th>Medication</th>
<th>Time Given</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Motrin</td>
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<tr>
<td>Opioid</td>
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</tbody>
</table>

### 7th Day after Surgery

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Tylenol</td>
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</tr>
<tr>
<td>Motrin</td>
<td></td>
</tr>
<tr>
<td>Opioid</td>
<td></td>
</tr>
</tbody>
</table>

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_Nationwide Children's Hospital_
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DISPOSAL

In many cases, individuals save their opioid medication and will use it for reasons the medication was not prescribed for or to give to others.

• 70% of people who abuse prescription opioids get them free from a relative or friend or by using their own prescription.

• Working on options for drug disposal boxes at our hospital.
Opioid Disposal

1. Mix with an unappealing substance.
2. Place in a sealed container.
3. Throw into household trash.
4. Scratch out personal information.

DEA Releases New Rules That Create Convenient But Safe and Secure Prescription Drug Disposal Options
Proper education of patients and families

- Helping Hand –
  - Important Facts to Know When Taking Opioids (Monitor, Secure, Transition, Dispose)
  - Opioid Helping Hands and video
- Educational Handouts
- 700 Children’s Blogs related to opioid safety and pain management
NCH Outpatient Pharmacies educating patients and families with each opioid script filled in our outpatient pharmacies.

Four Steps for Safe Opioid Usage

**Monitor**
1. Warn that medications should be taken only as directed by the medical provider or dentist because they can be harmful and habit-forming. Do not let anyone else take this medicine.
2. Take inventory.
3. Be on the lookout for “Seekers”.

**Transition**
1. The sooner a patient can get on the combination of acetaminophen and ibuprofen and off the opioid medication, the less likely they are to become dependent on opioids.
2. Using a combination of other non-opioid medication and non-medication pain management options are best.

**Secure**
1. Keep this medicine in a locked cabinet or lock box.
2. Don’t take all opioids when leaving the home, only what is needed while gone.

**Dispose**
1. Opioids and other medications should be disposed of when they are no longer needed.
2. Visit www.rxdrugdropbox.org to find a nearby collection location.

NationwideChildrens.org/Opioid-Safety.
Patient Education

Important Facts to Know When Taking Opioids

Opioid (OH pee avid) is the generic word that refers to a whole group of medicines. Opioid medicines are used for pain control. They work best when used with other non-medicine treatments for pain, in combination with acetaminophen and ibuprofen. Some of these are exercise, massage, heat, ice, relaxation techniques, deep breathing, and distraction.

There are 4 important points to remember when your child is taking opioids: Monitor, Secure, Transition, and Disposal.

Monitor

• These are laws that control the possession and use of opioids. Your child’s medical provider has ordered this medicine for your child only. They should be taken only as prescribed because they can be harmful and habit-forming. Do not let anyone else take this medicine.

• Know where the medicines are at all times. Keep a count of how much you have so you will always know how much is left.

• There is potential for abuse of these medicines. Opioid medicines should only be used when needed because they can be addictive. Even though this does not happen to everyone, opioid addiction can happen to anyone and can lead to permanent illness, injury and even death.
Opioid Safety Education H5A/H5B/H10B

Patient Education (%)

- Helping Hand Go-Live 11/2016
- Treating Pain After Surgery Go-Live 1/11/17
- Opioid Safety Learning Center Go-Live 3/10/17
- Unit Stats Email 5/3/17

Date

- 2016
- 2017
- 2018

Pt's educated

<table>
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<th>Date</th>
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<td>305</td>
<td>294</td>
<td>355</td>
<td>324</td>
<td>324</td>
<td>419</td>
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Opioid Safety Education Whole Hospital

<table>
<thead>
<tr>
<th>Date</th>
<th>Rate of Education</th>
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<th>Control Limits</th>
<th>Goal(s)</th>
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<td>2018 Mar</td>
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</table>

Pts educated: 0, 77, 178, 233, 184, 159, 294, 236, 351, 496, 370, 330, 437, 309, 361, 300, 267, 310
Pts d/c opioids: 1012, 897, 886, 1114, 932, 895, 1244, 875, 957, 1203, 899, 729, 1032, 707, 811, 751, 640, 755
Seeing a Cultural Change
Opioid Safety Taskforce
Prescribing Initiative - ENT

Project Leader:
Kris Jatana, MD
Haley Ellett, APN

Aim
Decrease the average number of opioid doses prescribed to ENT T&A patients by 50% from 32 doses to 16 doses by 6/30/2018 and sustain for 6 months.

Global Aim
Reduce Opioid Usage

Key Drivers
- Provider education
- Family education
- Technology
- Feedback loop for doses taken

Interventions
- Implement a form to track doses taken
- Measure team and provider level compliance with guidelines
- Create decision tree for pain treatment alternatives
- Implement evidence-based opioid prescribing practices
- Improve pre-op and discharge education to families about pain management expectations
- Develop Helping Hands/Educational materials
- Develop a list of prescription drop box sites
- Mandatory minor consent forms
- Enable E-prescribing of opioids
- Integrate OARRS access into Epic with single sign-on
- Pharm students follow-up phone calls to pertinent patients on # doses taken
- Measure % of patients who call to renew opioid prescriptions
Post-Op Medicine Chart: Please use this table to write down when medicine is given.

Give _____ mL of Children’s Tylenol (also called Children’s Acetaminophen 160mg/5 mL) every 6 hours as needed for *mild to moderate pain.*

OR

Give _____ mL Lortab liquid (which is 2.5 mg hydrocodone and 325 mg acetaminophen/5 mL) every 6 hours as needed for *severe pain.*

May alternate with _____ mL of Children’s Motrin (also called Children’s Ibuprofen 100mg/5 mL) every 6 hours *as needed for pain if not controlled with Tylenol or Lortab alone.*

<table>
<thead>
<tr>
<th></th>
<th>Acetaminophen/Tylenol</th>
<th>Hydrocodone-Acetaminophen/Lortab</th>
<th>Ibuprofen/Motrin</th>
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<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td>1._____ 3._____</td>
<td>OR</td>
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<td>OR</td>
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<td>OR</td>
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<td></td>
<td>2._____ 4._____</td>
<td></td>
<td>2._____ 4._____</td>
</tr>
</tbody>
</table>

For Questions:
**BETWEEN 8:30 A.M.- 4:30 P.M., Call the ENT NURSE TRIAGE LINE: 614-722-6547**
**AFTER 4:30 P.M., Call 614-722-2000, Ask for ENT Doctor On-Call**
* A sqrt(a+bx) transform to correct for left skew was used to determine control limits. Limits were then reverse transformed to reflect original data metrics.

**Average # Opioid Doses Prescribed for T&As**

- **Month**
  - Jan
  - Feb
  - Mar
  - Apr
  - May
  - Jun
  - Jul
  - Aug
  - Sep
  - Oct
  - Nov
  - Dec

- **Year**
  - 2015
  - 2016
  - 2017
  - 2018

**Desired Direction**
- 1) e-prescribing
- 2) Pain control decision tree
- 3) Narcotic consent
- OARRS compliance and Project kick-off
- 5 day/7 day OARRS
- Provider level feedback

**Graph Notes**
- Avg doses prescribed per month
- Process Stage Mean
- Process Stages
- Control Limits*
- Goal(s)

* A sqrt(a+bx) transform to correct for left skew was used to determine control limits. Limits were then reverse transformed to reflect original data metrics.
% of T&A patients who DID NOT receive an opioid Rx

Chart Type: p-Chart

Desired Direction

Month

- % patients who did not receive opioid rx per month
- Process Stage Mean
- Process Stages
- Control Limits
% of T&A patients initially NOT Rx called for an opioid Rx
% of T&A Called ENT Clinic for Opioid Rx Refill

Chart Type: p-Chart

% patients called in

Month

- % compliance per month
- Process Stage Mean
- Process Stages
- Control Limits
- Goal(s)
% patients with ED/UC visit or Readmission within 2 weeks

Chart Type: p-Chart

% patients return visit
% Patients with return visit within 2 weeks
% patients per month

Desired Direction

2017 2018

Month

% patients per month  Process Stage Mean  Process Stages  Control Limits
% of patients with ED/UC visit or Readmission within 2 weeks, not given Opioid Rx

Chart Type: p-Chart

Month

% patients return per month
Process Stage Mean
Process Stages
Control Limits

Desired Direction

% of patients with ED/UC visit or Readmission within 2 weeks, not given Opioid Rx
% of Post-op calls for Pain or Rx Refill

Chart Type: p-Chart

% Patients who call in per month

Month

2016

2017

% patients who call in per month
Process Stage Mean
Process Stages
Control Limits
Goal(s)
Safer alternatives

Jatana said Nationwide Children's Hospital has done a lot of quality improvement work related to decreasing opioid prescriptions as well as decreasing the number of doses prescribed.

"Through our intervention at our own hospital, where we do about 4,000 of these procedures a year, we have been able to prescribe opioids to less than one-third of the patients, where primarily we were (previously) prescribing opioids to about 85% of the patients," he said.

"We primarily use Tylenol and ibuprofen as
Reduce the Number of Doses of Opioid Pain Medication Prescribed to Appendicitis Patients at Discharge

Project Leader: Brian Kenney, MD
## Westerville Knee Post Op Block Pts

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2016</th>
<th>2017</th>
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<th>2018</th>
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</tr>
<tr>
<td>Qtr3</td>
<td></td>
<td></td>
<td>6</td>
<td>19</td>
</tr>
</tbody>
</table>

- **Average of # prescribed**
- **Average of # taken**
Prescriber and Nursing Survey Results
Do you provide the patient/caregiver a helping hand on Proper Disposal of Medication?

Answered: 72    Skipped: 0

Do you talk with patients and families about the importance of safe disposal and how to dispose of opioids or unused medications?

Answered: 386    Skipped: 1
**What are acceptable ways of disposing of unused medications? (Select all correct answers)**

**Pre**

- Flush down the toilet
- Put down the drain
- Mix with undesirable...
- Medication disposal box...
- Return to any pharmacy to...
- Save for Drug Take Back day...
- Other (please specify)

**Post**

- Flush down the toilet
- Put down the drain
- Mix with undesirable...
- Medication disposal box...
- Return to any pharmacy to...
- Save for Drug Take Back day...
- Other (please specify)
Prescriber 2 Year Post Survey Results

How do you determine the quantity of home going opioids to prescribe?

- Always give the same number to similar types of patients: 30.00%
- Always give the max 5-7 day supply: 25.00%
- Look to see how much patient has been/reports using and give that amount: 15.00%
- Other (please specify): 5.00%

When writing a home going opioid prescription which of the following do you discuss?

- Benefits and Risk: 70.00%
- How to take the opioid medication: 60.00%
- How to Transition/Wean off the opioid medication: 50.00%
- How to Transition/Wean off the opioid medication: 40.00%
- The importance of Monitoring opioids used and: 30.00%
- It is considered Opioid Misuse if taking an opioid: 20.00%
- Importance of Disposal of unused medications: 10.00%

Nationwide Children’s
When your child needs a hospital, everything matters.”
2 Year Post Survey Results

When a patient is discharged from the hospital with an opioid prescription, which of the following do you ensure the patient/caregiver understands prior to discharge? (check all that apply)

- Side effects
- Benefits and risks
- How to take medication
- When to call their practitioner
- Proper Storage of medication
- Review instructions on how to...
- Proper Disposal of medication
- NA - do not send patient home...

Has your practice changed with opioid safety education to patients/caregivers in the past year?

- Yes
- No
- Yes but only for patients I am concerned about
2 Year Post Survey Results

Prescribers

Are you aware of Opioid Safety Initiatives at Nationwide Children's Hospital?

- Yes: 100.00%
- No: 10.00%

Nurses

Are you aware of Opioid Safety Initiatives at Nationwide Children's Hospital?

- Yes: 60.00%
- No: 40.00%
Other Opportunities for Organizations
Opioid Disposal

National Drug Takeback Day 2017

33,261 pounds collected in Ohio
Diversion in Health Systems

Two overdoses, One death

$2.3 Million Settlement

Probation 3 years
Diversion Prevention and Detection
Working with the community

Build your team

- Identify someone to serve as Drug Prevention Specialist or Coordinator. If your school district does not have someone officially serving in the role of drug prevention specialist or coordinator, recruit someone who understands and is passionate about the issue of drug misuse and abuse to take on the role. This typically is a school nurse, guidance counselor or coach, but it could also be a teacher or administrator who has experience with this issue and is willing and able to play an active role.

- Build a Drug Prevention Team in your school. Many people are vested in the education of students, especially when a health issue like drugs or alcohol affects their ability to learn. Lead by the individual serving as Drug Prevention Specialist or Coordinator, an effective drug prevention team breaks down into four sub-teams:

| Student and family | Academic teacher, guidance counselor, school administrator and/or psychologist | Athletic coach, athletic director, physical education teacher | Medical staff: physician, athletic trainer |
|--------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------|

- Have a game plan. Now that you’ve identified a team, you must establish a clearly defined process and line of communication so that every team member is effectively and successfully adhering to their roles and expectations and playing an active role.

Tool No. X: Drug Prevention Team Roles and Responsibilities

Tool No. Y: Drug Prevention Game Plan

This information was made possible through a grant from the Cardinal Health Foundation to Dublin A.C.T. Coalition, which worked in partnership with Nationwide Children's Hospital.
CONCLUSION

Our country is in the midst of an Opioid Epidemic and we as healthcare providers can make a difference

– We need to take measure with thoughtful about pain management and prescribing of opioids while still balancing the right thing for patient care
– Need to ensure with have best practice protocols in place for using multimodal approach in patient care
– Need to ensure we are educating on benefits, risk, and opioid safety and have means for our families to use opioid safety measures at home
– Ensure we have structure and support in our place of work
– We need to be advocates and work with our communities
THANK YOU!