Reducing Inpatient Opioid Consumption

Creating a Therapeutic Foundation with Breakthrough Analgesia Based on Patient Function

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Peggy Lutz, FNP-BC, RN-BC
March 27, 2019
Conflict of Interest

- Chad Dieterichs, no conflict of interest
- Peggy Lutz, no conflict of interest
Educational Objectives

At the conclusion of this activity, participants should be able to:

1. Identify the fundamental concepts of person-centered, multi-modal pain management.
2. Describe the components included in development of therapeutic activity goals.
3. Discuss the step approach to pain management based on patient function.
Ascension is the largest Catholic healthcare organization in the country, with over 156,000 associates and 34,000 aligned providers working as one to connect care and deliver solutions to individuals and communities in 21 states and the District of Columbia.

About Ascension

Ascension is a faith-based healthcare organization that delivers personalized, compassionate care to all, especially to those who are poor and vulnerable.

- In FY18, Ascension provided nearly $2 billion for care of persons living in poverty and community benefit.
- Our Mission-driven work is carried out through a number of subsidiaries dedicated to providing healthcare services to support personalized, compassionate care.
USAP’s mission is to provide superior anesthesia services through our commitment to quality, excellence, safety, innovation and leadership. USAP recognizes the value of all people and is devoted to achieving positive outcomes via relationships established between patients, employees and clinical staff.

- 3500 clinical team members
- 26 million people served
- Locations in 8 states
Managing Pain in a Time of Opioid Crisis

According to the US Institute of Medicine, 2011, **88%** of surgical patients report *moderate to extreme pain* (Gan, 2017)

**25% of patients** having abdominal hysterectomy and **37% of patients** having thoracotomy report *persistent pain at 4 months* (Montes et al, 2015)

**Chronic pain** impacts more American’s than diabetes, heart disease, cancer and stroke (CDC, 2015)

- **2 million Americans**, age 12 and older, either abused or were dependent on opioid pain relievers in 2013
- In 2013, **16,000 people died** in the United States from overdose related to opioid pain relievers *(4 times the number in 1999)*
- The United States is 5% of the world’s population but consumes **85% of the world’s opioids** (CDC, 2015)
Guidelines, Guidelines, and MORE Guidelines
Our Pain Management Journey

- **2014**
  - Journey began

- **July 2015**
  - Pain Management Summit

- **2016**
  - Released guidelines and implemented 12 evidence-based pain assessment tools across the care continuum

- **2017-18**
  - Piloted multimodal pain management order set, deprescribing strategies

- **2019**
  - Implementing best practices from 2016 general guidelines and piloting best practices from 2017 and 2018
Pain Management and Opioid Stewardship Initiatives

- General pain management principles
- Deprescribing practices for intravenous opioids
- Multimodal pain management order set
- Outpatient pain management strategies
From dosing to numbers …

• Pain management order sets were not reflective of current evidence-based pain management practice
  ▪ PRN medication orders based on pain intensity score, which may over or undertreat a patient’s pain
  ▪ Minimal use of scheduled non-opioid foundation
• Citations by The Joint Commission regarding therapeutic duplication, nurses practicing out of scope, etc.
• Inconsistent use of integrative therapies
...to use of a multimodal pain management plan

- Scheduled “non-opioid” foundation
- Defined interdisciplinary Therapeutic Activity Goal (TAG) to drive the plan of care for the physician, patient, and care team
- PRN analgesic dosing connected to patient’s ability to achieve TAG
- Increased use of integrative/complementary therapies
Therapeutic Activity Goal

Definition

- The level of acceptable pain intensity, the level and types of desired activities, and the ability to accomplish other patient-centered functional goals.

Key Points

- Partnership between the multidisciplinary team and the patient/family to establish TAG
- Considers baseline level of function, mobility, ADLs, psychosocial elements (sleep/rest), treatment plan
- Evolves throughout the patient’s hospitalization based on their progress
- Continued assessment of pain scores as a component of TAG
Establishing Therapeutic Activity Goals

- Make goal(s) specific and measurable
- Make goal(s) realistic
- Make goals relevant to the patient's overall treatment goals
- Identify barriers that might interfere with ability to achieve goals and how the patient and care team will address them
- Review TAG during daily multidisciplinary rounds
Therapeutic Activity Goals

Activities of Daily Living
- Full Assistance
- Non-participation
- Bed pan

Assisted walking
- Assisted transfers
- Bedside commode

Independent walking
- Shower and Personal Hygiene
- Independent meals

Psychosocial
- Rest comfortably
- Interacts with staff and family

Self-directed pain management
- Active engagement

Mobility
- Full Assistance
- Bedside Chair via lift
- Non-Participation

Dangle at Edge of Bed
- Sit in Chair
- Stand and Pivot with assistance

Walk on Unit
- Walk in Unit Corridor
- Walk without assistance

Ascension
<table>
<thead>
<tr>
<th>TAG Mobility</th>
<th>TAG Activities of Daily Living (ADLs)</th>
<th>TAG Psychosocial Elements</th>
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<tbody>
<tr>
<td>Independent or Limited Assistance</td>
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<tr>
<td>Stands and walks without any assistance or with use of a simple device or minimal assistance</td>
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<tr>
<td>TAG Options</td>
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<tr>
<td>- Walk from bed to doorway and back</td>
<td>- Walk to toilet with stand-by assistance only</td>
<td>- Demonstrate self-determination/self-efficacy</td>
</tr>
<tr>
<td>- Walk in unit corridor</td>
<td>- Perform personal hygiene with stand-by assistance only</td>
<td>- Self-direct pain management</td>
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<tr>
<td>- Walk to unit patient/family lounge</td>
<td>- Shower and get dressed with stand-by assistance only</td>
<td>- Self-direct progress to hospital discharge</td>
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<tr>
<td>- Walk to unit nourishment area</td>
<td>- Eat meals with simple set-up</td>
<td>- Interact extensively with family &amp; friends</td>
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<td>- Actively engage with staff</td>
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<tr>
<td>Moderate or Extensive Assistance</td>
<td>Moderate or Extensive Assistance</td>
<td>Moderate or Extensive Assistance</td>
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<td>Stands and pivots only with assistance, unable to walk unassisted</td>
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<tr>
<td>TAG Options</td>
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<tr>
<td>- Dangle at edge of bed</td>
<td>- Transfer to bedside commode with assistance</td>
<td>- Interact with friends and family as possible</td>
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<tr>
<td>- Sit in bedside chair to watch television, read, or converse</td>
<td>- Personal hygiene with assistance</td>
<td>- Participate in pain management</td>
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<tr>
<td>- Sit in bedside chair or at edge of bed while eating meals</td>
<td>- Get dressed with assistance</td>
<td>- Participate in hospital discharge planning</td>
</tr>
<tr>
<td>- Visit unit patient/family lounge in wheelchair</td>
<td>- Feed self with assistance</td>
<td>- Chose and participate in non-pharmacologic pain management modalities</td>
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<td>- Chose and participate in pain distraction techniques and activities</td>
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<tr>
<td>Total dependence</td>
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<tr>
<td>Complete non-participation by patient and full assistance needed</td>
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<tr>
<td>TAG Options</td>
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<tr>
<td>- Bed placed in beach chair position</td>
<td>- Use of bed pan</td>
<td>- Resting comfortably</td>
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<td>- Up in bedside chair via lift</td>
<td>- Roll from side to side for cleaning</td>
<td>- Maintain normal wake/sleep cycle</td>
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<td>- Respond to personal communication</td>
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<td>- Aware of hospital course and discharge planning</td>
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[Ascension] [US Anesthesia Partners]
Patient Involvement: Key to Success

- Validate TAG and acceptable level of pain at the start of each shift and PRN

- Patient education tips:
  
  “While it is generally not possible to take away all of your pain, we will do everything possible to manage your pain effectively so you will recover as quickly as possible.”

  “To help you identify your goals, think about the activities and treatments you will do today, including your need to rest and sleep. What level of pain (discomfort) will allow you to do those activities?”
Multimodal Pain Management Plan

- **1st dose breakthrough pain medication**
- **2nd dose breakthrough pain medication**
- **3rd dose breakthrough pain medication**

**FOUNDATION OF PAIN MANAGEMENT**
- scheduled non-opioid foundation
- topical agents
- integrative therapy such as aromatherapy, heat/cold, massage, pet therapy, acupuncture, bio-feedback
Order Set: Foundational Components

• Maintain patient’s home therapies
• Focus on multi-modal treatment, including integrative therapies
• Opioid for breakthrough pain connected to patient’s ability to achieve daily therapeutic activity goal
• Limit choices within the same medication class to avoid therapeutic duplication
• Strongly encourage removal of combination opioids to avoid hepatotoxicity with acetaminophen products
Multimodal Pain Order: Scheduled Non-Opioid Foundation

Acetaminophen 1 gram PO q6h
Acetaminophen 1 gram PO q8h

Ketorolac 15 mg IVP q6hr x ___ days
Ketorolac 30 mg IVP q6hr x ___ days

Ibuprofen 400 mg PO q6h
Ibuprofen 600 mg PO q6h
Ibuprofen 800 mg PO q8h
Celecoxib 200 mg PO q12h
Naproxen 550 mg PO q12h
Multimodal Pain Order: Scheduled Gabapentin

The American Pain Society’s 2016 *Guidelines for Management of Post-Operative Pain* recommend the use of gabapentin as a component of multimodal pain management as it may reduce opioid requirements and reduce pain scores.

Two dosing options for gabapentin (select one)

1. **Gradual ramp-up based on patient tolerance, consider need for renal dosing**
   - Day 1: 300 mg oral, daily x 1 day
   - Day 2: 300 mg PO q12h x 1 day
   - Day 3: 300 mg PO q8h x __days

2. **Set daily dose with option for renal dosing**
   - Gabapentin 300 mg PO q8h
   - Gabapentin 300 mg PO daily
   - Gabapentin 100 mg PO q8h
Multimodal Pain Order: two-step oral opioid

**STEP 1 – select only one option**

**Oxycodone** (initial dose)

- 5 mg PO q4h PRN, pain, to achieve therapeutic activity goal. Total maximum dose (initial + additional) not to exceed 15 mg in a 4-hour period.
- 10 mg PO q4h PRN, pain, to achieve therapeutic activity goal. Total maximum dose (initial + additional) not to exceed 20 mg in a 4-hour period.
- 15 mg PO q4h PRN, pain, to achieve therapeutic activity goal. Total maximum dose (initial + additional) not to exceed 25 mg in a 4-hour period.

*Note: morphine is another medication option; no combination products available, in order to minimize potential for exceeding maximum daily dosage.*

Hold parameters: respiratory rate < 10 per minute, SBP less than 90mmHg, or POSS > 3.

**STEP 2 – select only one option**

**Oxycodone**

5 mg PO PRN, to achieve therapeutic activity goal (additional doses).
Multimodal Pain Order: two-step oral opioid
Multimodal Pain Order: PRN IV Opioid

PRN Pain unrelieved by PO pain medication or unable to take PO

- Morphine 2 mg, IV Push, q2h PRN
- Morphine 4 mg, IV Push, q2h PRN
- Hydromorphone (Dilaudid®) 0.25 mg, IV Push, q2h, PRN
- Hydromorphone (Dilaudid®) 0.5 mg, IV Push, q2h PRN
Benefits to Providers and Pharmacists

When the multimodal pain management order set is utilized, there is the potential for decreasing phone calls about pain medication orders as the order set:

- Maximizes the therapeutic effect for each medicine prior to moving to another.
- Creates a synergism with therapies to maximize treatment and minimize opioids.
- Specifies pain medicine and dosing based on an individual basis.
- Has been shown across modalities as the most effective method for pain treatment.
- Decreases the opportunity for therapeutic duplication.
Benefits to Nursing

Decreased nurse workload from improved pain management and decreased opioid utilization as noted by:

- Fewer patient side effects (constipation, nausea, dizziness, respiratory depression, etc.) and thus, reduced need for treatments to manage side effects.
- Decreased need to give additional pain medications because the process maximizes a non-opioid treatment foundation.
- Rare need for IV pain medications.
Benefits to Patients

- Pain management plan based on individualized patient goals
- Patients are less sedated
- Minimal side effects to manage
- Patients are better able to participate in their care
Inpatient Pain Management Process

Goal: Safely manage pain so patient can progress through the treatment pathway and achieve Therapeutic Activity Goals for transition.

**3. Pharmacist prospectively reviews medication order for appropriateness**
- This includes looking at indication, dose, dosage form, route, frequency drug-drug interaction and drug-disease interaction.

**2. Provider assesses patient and creates Therapeutic Activity Goals**
- Provider partners with care team, patient and family to establish Therapeutic Activity Goals.
  - Considers patient baseline function.
  - Reviews the treatment pathway for procedure/diagnosis.

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Lessons Learned

• Take the time to have a personalized conversation with the patient and truly understand their perspective on managing pain.

• Requires establishing a relationship with the patient, coming to their frame of reference and helping them understand how the plan works.

• Goal setting – conversation is led with empathy and compassion, but setting realistic expectations for what is achievable without oversedation risk and diminishment of patient’s ability to participate in recovery.

• Always discuss pain in relationship to accomplishing their goals for the day and pain management in the context of function.

• Use of communication board and bedside shift report are important tools to communicate what worked and what didn’t.
# Prescribing Recommendations

**UPDATED 2019**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Oxycodone* 5mg tablets</th>
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<tbody>
<tr>
<td>Laparoscopic Cholecystectomy</td>
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<tr>
<td>Open Cholecystectomy</td>
<td>15</td>
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<tr>
<td>Appendectomy – Lap or Open</td>
<td>10</td>
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<tr>
<td>Hernia Repair – Major or Minor</td>
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<tr>
<td>Colectomy – Lap or Open</td>
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<tr>
<td>Ileostomy/Colostomy Creation, Re-siting, or Closure</td>
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<tr>
<td>Open Small Bowel Resection or Enterolysis</td>
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<td>Thyroidectomy</td>
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<td>Sleeve Gastrectomy</td>
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<td>Prostatectomy</td>
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<tr>
<td>Laparoscopic Anti-reflux (Nissen)</td>
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<tr>
<td>Laparoscopic Donor Nephrectomy</td>
<td>10</td>
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<tr>
<td>Cardiac Surgery via Median Sternotomy</td>
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<tr>
<td>Hysterectomy – Vaginal, Lap/Robotic, or Abdominal</td>
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<tr>
<td>Cesarean Section</td>
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<td>Breast Biopsy or Lumpectomy</td>
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<tr>
<td>Lumpectomy + Sentinel Lymph Node Biopsy</td>
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<tr>
<td>Sentinel Lymph Node Biopsy Only</td>
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<tr>
<td>Wide Local Excision + Sentinel Lymph Node Biopsy</td>
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</tr>
<tr>
<td>Simple Mastectomy + Sentinel Lymph Node Dissection</td>
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</tr>
<tr>
<td>Modified Radical Mastectomy or Axillary Lymph Node Dissection</td>
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<tr>
<td>Carotid Endarterectomy</td>
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<tr>
<td>Total Hip Arthroplasty</td>
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<td>Total Knee Arthroplasty</td>
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*The recommendations remain the same if prescribing hydrocodone 5mg
Change Management Strategies

- Team approach
- No fear to do the right thing
- Energy
- IT/IS support
- Educator support
- Physician and Nurse Champion(s)
- Project manager
- Accurate data collection
References

Thank you!

Chad Dieterichs, MD – US Anesthesia Partners, Austin, TX
Peggy Lutz, FNP-BC, RN-BC – Ascension Wisconsin, Stev
**PCSS** is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

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<td>American Society of Addiction Medicine</td>
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<td>Addiction Technology Transfer Center</td>
<td>American Society of Pain Management Nursing</td>
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<td>American Academy of Pain Medicine</td>
<td>Association for Medical Education and Research in Substance Abuse</td>
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<tr>
<td>American Academy of Pediatrics</td>
<td>International Nurses Society on Addictions</td>
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Funding for this initiative was made possible (in part) by grant nos. 5U79TI026556-02 and 3U79TI026556-02S1 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.