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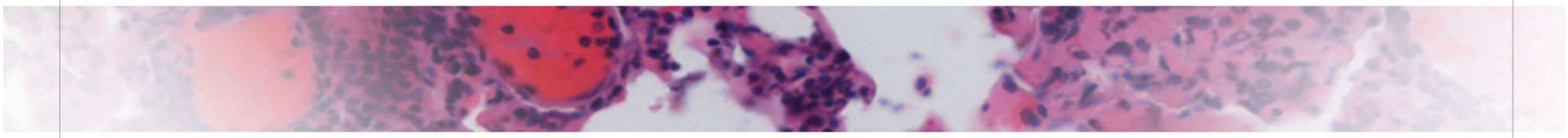


Creating an Institution-wide Approach to SCD

Management

Wally R. Smith, MD

(some slides courtesy of Payal Desai, MD, John Roberts, MD,
C Patrick Carroll, MD)

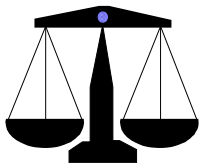
Disclosures

No relevant disclosures

Why an Institution-wide Approach to Pain in SCD?

Conflicting clinician attitudes

"It's a terrible disease; give them whatever they want."



"They are all drug addicts; get them out of the hospital and off opioids."

The hallmark presentation

- Most inconsistently treated symptom
- Underestimated, undertreated
- Patient mistrust→ Clinician mistrust→ patient/clinician conflicts→ avoidance of visits

Complicated

- Acute vs chronic vs acute-on-chronic
- Some patients have multiple disorders:
  - (1) pain disorder, and/or
  - (2) opioid misuse or opioid use disorder, and/or
  - (3) anxiety/depression/PTSD/co-dependency/personality disorder
- Few guidelines; mainly for acute SCD pain

Conscientious Clinician

Conscientious Clinician in a Conscientious Organization

Scenario 1: SCD Outpatient Pain Management

- 51-year-old AA bus driver
  - HB SS, Usual Hb 8-8.5
- Visit 1
  - Interval History
    - # Hospitalizations/yr: 2-3[1]
    - # ER visits/yr: 3[2]
    - 30/30 pain days[3]
    - Pain intensity: 7-8/10
  - Medications
    - Oxycodone with acetaminophen 5/325 2 q4h PRN, usu. 12/day
      - [THIS ACETAMINOPHEN OVERUSE AND NO. TABS ACTUALLY HAPPENED]

[1]Platt OS et al. *N Engl J Med*. 1991;325:11-16.
[2]Aisiku IP et al. *Ann Emerg Med*. 2009;53(5):587-593.
[3]Smith WR et al. *Ann Intern Med*. 2008;148:94-101.

Chief Complaint, First Visit

- Temporary relief, frustrated
  - "I keep having to take pills every 4 hours, and I'm in pain in between doses."
  - "I'm worried I will lose my job due to missed days at work."[4-5]
  - Wife accompanies,[6] reports poor sleep[7]
  - Patient reports decreased libido, poor self-esteem[8]
  - Patient reports avoiding becoming addicted all his life "Trying to bear the pain at home."

[4]Shapiro BS et al. *Pain*. 1995;61(1): 139-144.
[5]Gil KM et al. *Health Psychology*. 2004; 23(3):267-274.
[6]Brandow A et al. *Br J Haematol*. 2009 Mar;144(5):782-788.
[7]Palermo TM, Kiska R. *J Pain*. 2005 Mar;6(3):201-207.
[8]McClish DK et al. *Health Qual Life Outcomes*. 2005;3:50.

Small groups

Questions for the Group

- Do you have an institutional or group approach to this kind of patient?
- Do members of your group practice treat this patient the same?
- What medications to add or manipulate?
- When to have the patient return to report progress?
- Treatment goals in general for patients like this?

Principles That Might Inform Your Policy

- Severity and Chronicity of Sickle Cell Pain[1-3]
  - Subphenotypes of chronic pain[9]
- Consequences of chronic pain[4-8]
- Definition and how to overcome tolerance, definition of physical dependence, addiction[10,11]
- Principle of Titration[12,13]
- Principle of Pain Control vs. Pain Elimination[14,15]
- Epidemiology and management of opioid side effects[14,15]

[9]Dampier C et al. *J Pain*. 2017;18(5):490-498.
[10]Analgesic Tolerance to Opioids. *Pain Clinical Update*. Vol IX, No 5. December 2001, p1. Int Assoc Study Pain. Accessed February 5, 2011.
[11] Meehan WJ et al. http://www.emedicine.com/med/topic1673.htm. Last Updated: April 18, 2006 , accessed August 23, 2006.
[12]Ventafridda V, et al. *Int J Tissue React.* 1985;7(1):93-96.
[13]Mercadante S. *Eur J Pain.* 2007;11(8):823-830.
[14]McCracken, LM, et al. *Pain Med.* 2012;13(7):861-867.
[15]https://en.wikipedia.org/wiki/Pain_management

Legal Obligations Around Opioid Prescribing

- Provide appropriate medical care
  - Appropriate access to opioid analgesics
  - Access to antagonist
  - Good documentation
- Set appropriate limits
  - Patient opioid use "contracts" (agreements)
- Monitor for inappropriate drug use
  - Physical findings
  - Pharmacy refill records
  - Urine testing
  - Medical records
    - Your medical center
    - Other medical centers (release of info or via multi-hospital network databases, RHIOs)
  - Prescription monitoring program

RHIO, Regional Health Information Organization

How will you use each of these pain management tools?

Pharmacologic

- Acetaminophen
- NSAIDs
- Opioids
- Topical lidocaine
- Topical capsaicin/camphor/menthol/phenol
- "Adjunctive" meds
  - Antidepressants
  - Anticonvulsants
  - Ketamine
- Cannabinoids

Non-pharmacologic

- Local heat/cold
- Distraction
- Massage
- Guided imagery
- Meditation

Scenario 2: In-patient Pain Management

- 41-year-old unemployed AA male presents for admission
- Hb SS
- Usual Hb 6.5-8.0
- Six visits over 2 years
- Not seen (incarcerated) for 7 years prior to that
- Last seen in sickle cell clinic and last reported crisis about 6 mos prior to admission

History of Present Illness

- Day of admit → severe pain after showering, with increased outdoor physical activity in August weather as main trigger
- Pain in low back and legs
- On last admission remembers getting morphine, but can't recall doses
- Reported medications: Oxycodone 30 mg 10-15 tablets daily
- No long-acting opioids

Physical Exam

Day of admit (11:51)	Temperature Oral (° C)	36.8°C
	Temperature Oral (Calc °C to °F)	98.2°F
	Pulse	84 bpm
	Respiratory Rate: Actual	16/min
	SpO2	95%
	BP: Systolic	142 mmHg H
	BP: Diastolic	80 mmHg
	BP position	Sitting
Pain Score:	10, Worst possible pain	
	Pain scale used	0-10
	Pain acceptable to patient	No
	Pain location (alpha)	Back, leg
	Pain quality	Aching

Small groups

Questions for the Group

- Do you have an institutional or group approach to this kind of patient?
- Do members of your group practice treat this patient the same?
- What medications to add or manipulate?
- When to admit?
- Initial inpatient treatment? Titration plan?
- General inpatient treatment goals in for patients like this?

"It's our new method for determining who we should treat first. We take people in order of how loud they scream."

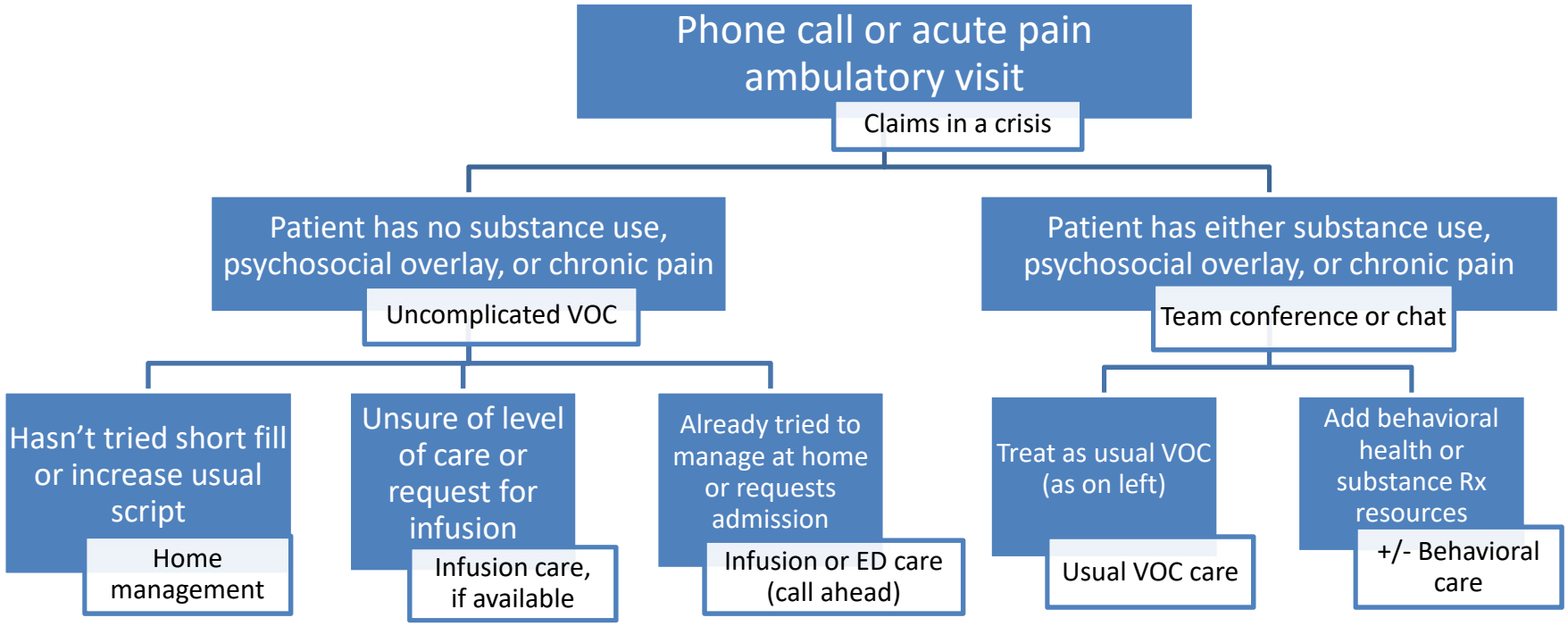
Could this be your ED's approach to SCD pain?

Relevant Guidelines for Acute Pain Management

- 2014 NHLBI Expert Consensus Panel[16,17]
  - Opioids within 30-60 minutes of arrival in the ED
  - Around-the-clock dosing vs intermittent for VOCs
- 2020 ASH Clinical Practice Guidelines on Sickle Cell Disease—SCD-Related Acute pain[18]
  - Pain assessment and medication administration within one hour of arrival
  - Frequent reassessment every 30-60 minutes for additional pain medication for control

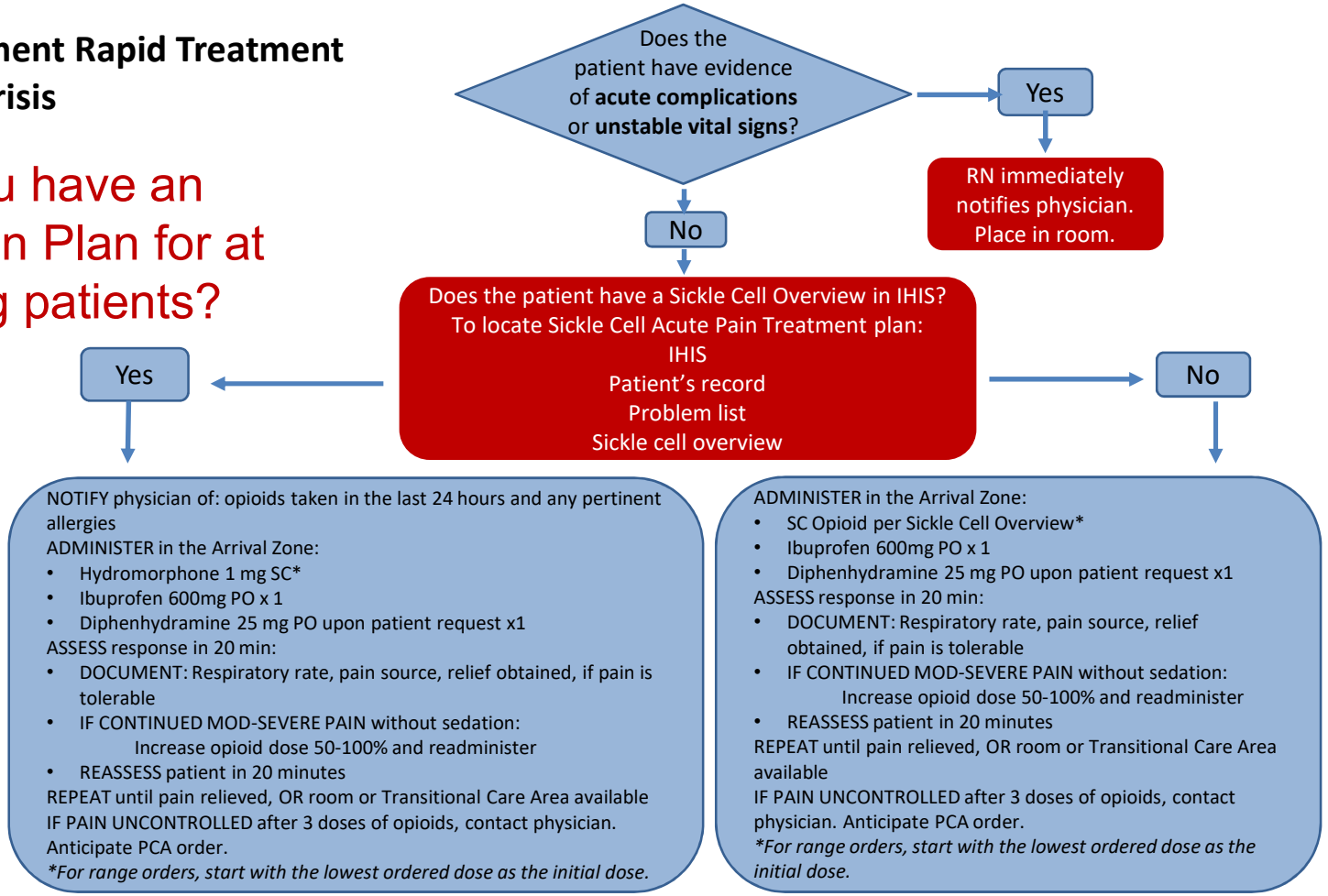
[16]National Institutes of Health. US DHHS. Evidence-based Management of Sickle Cell Disease. Expert Panel Report. 2014.
[17]Yawn BP et al. *JAMA*. 2014;312(10):1033-1048. (Errata in: *JAMA*. 2015;313(7):729 and *JAMA*. 2014;312(18):1932).
[18]www.hematology.org/SCDguidelines

Example: Acute Pain Triage by Full SCD Team



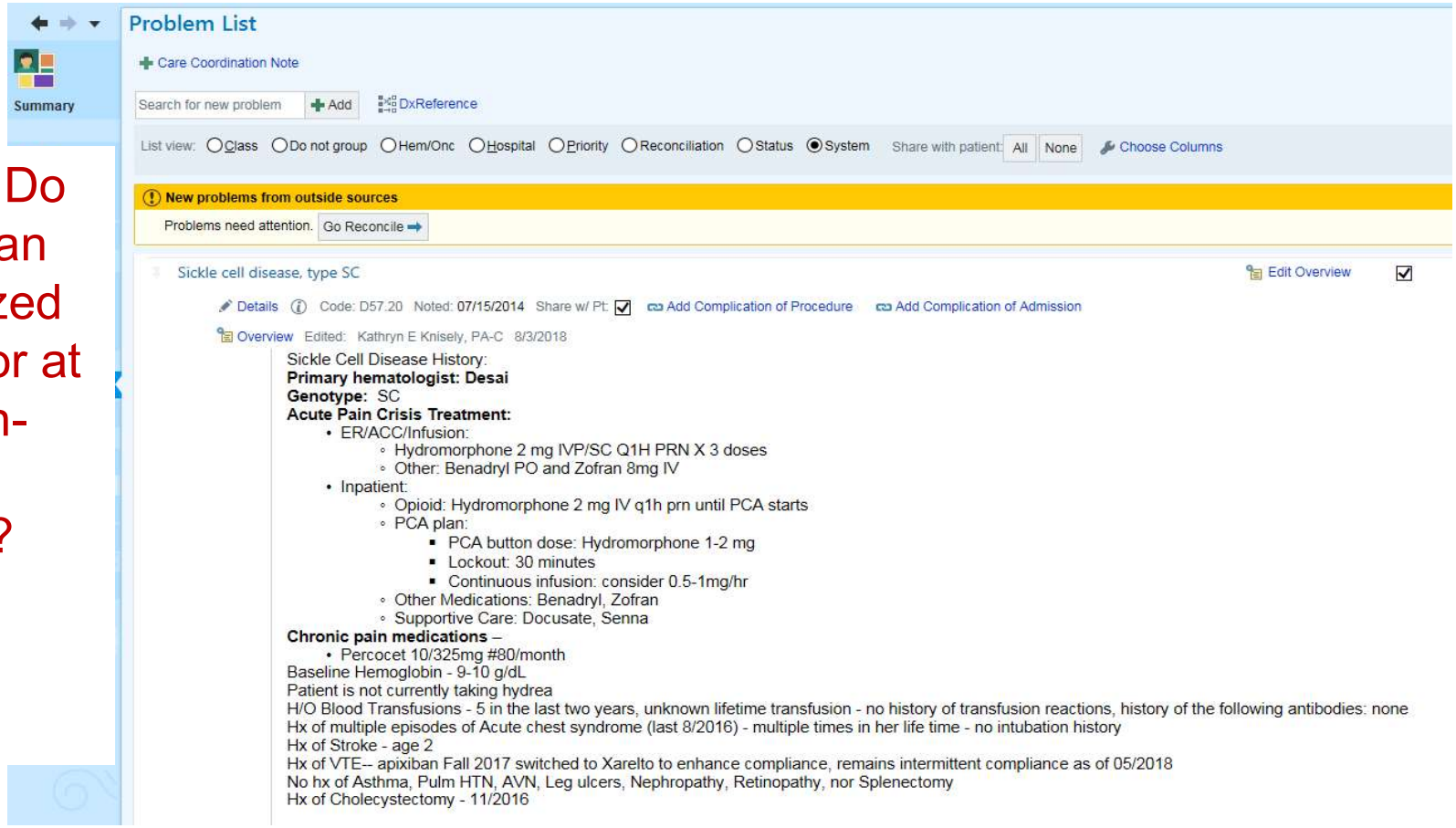
Emergency Department Rapid Treatment of Sickle Cell Pain Crisis

Question: Do you have an Individualized Pain Plan for at least high-utilizing patients?



Desai PC et al. *Blood*. 2015;126(23):2078.

Question: Do you have an Individualized Pain Plan for at least high-utilizing patients?



Utility of Individualized Pain Plans

- Easily accessed, expectation that they will be accessed in EHRs
- Dated and updated
- Brief
- Specify opioid name, dose, and frequency
- For admissions, plan for bridging pain management from ED to floor
- Advisories
  - Complicating medical conditions
  - Opioid sensitivity: respiratory depression, delirium
- Restrictions, if appropriate

COMPONENTS OF AN INSTITUTIONAL APPROACH TO SCD PAIN

Principles

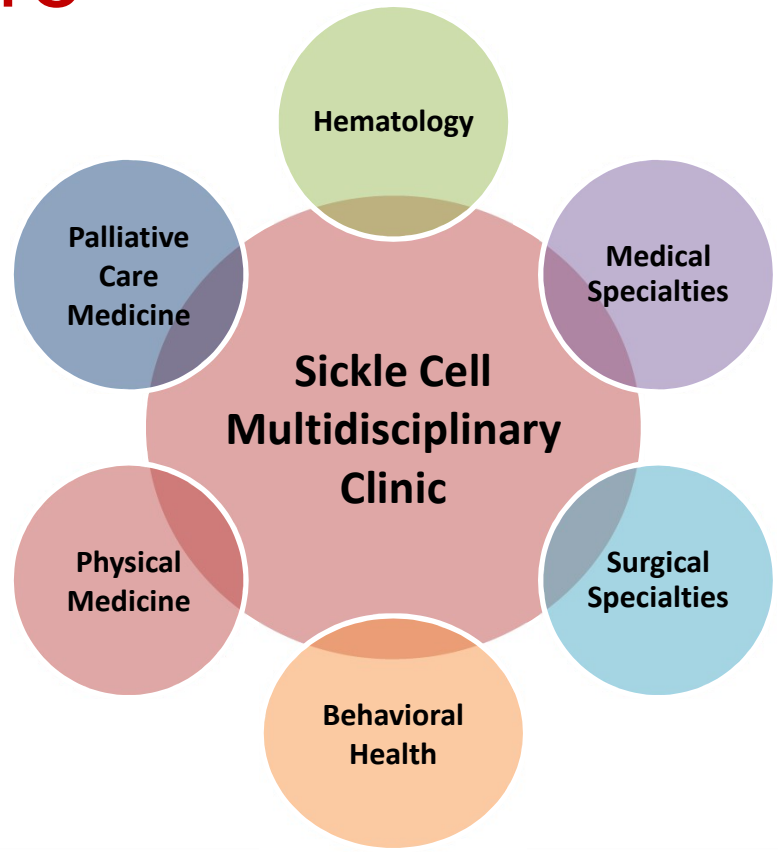
- The institutional approach to pain should operationalize a strategy to improve patient wellbeing while managing the disease itself, and having a rational approach to treating acute and chronic pain while managing *risks* in that context
  - *Manage the disease first*
  - *Select an appropriate paradigm: chronic, acute, or superimposed*
  - *Assess for treatment failure and change paradigms when appropriate*

Principles (cont.)

- This approach must be consistent in every setting–which requires means of assuring that consistency
  - EVERYONE MUST AGREE, FOR EXAMPLE, ON WHAT OPIOID FAILURE MEANS, OR WHEN TO NOT USE IV OPIOIDS
  - Close collaboration with all colleagues involved in the case
  - Best to have written guidance on diagnosis and management plan widely available
- Every program should have an individualized pain plan for at least high-utilizing patients
  - Allows consistency in changing both provider and patient behavior
  - Allows monitoring of effect so that changes can be made rationally
  - Minimizes concern and suspicion on the part of other providers and patients

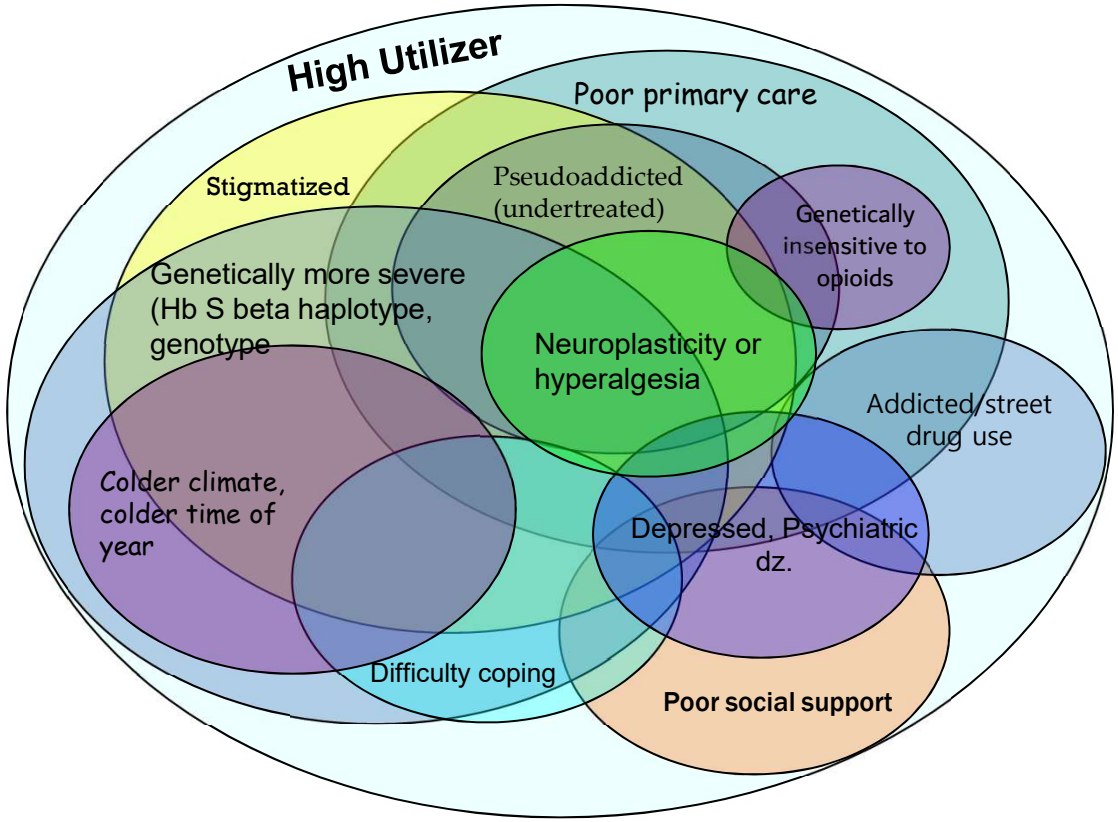
Comprehensive Care

- Outpatient
- Inpatient
- Day Hospital/Infusion/Acute Treatment
- Emergency Department
- Coordination with other specialties
- Quality Program



Strategies for Pain Management Should Cover:

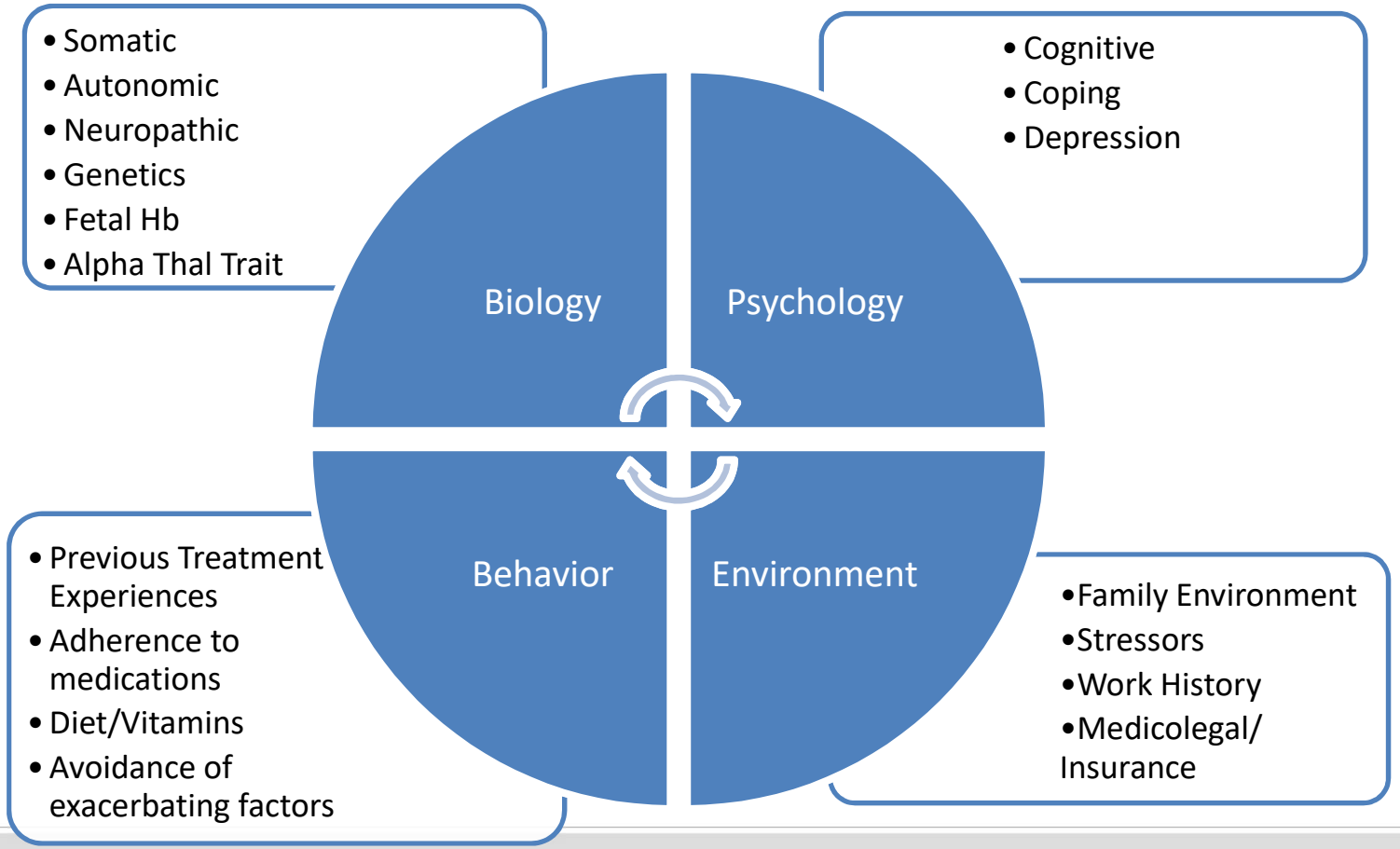
- Uncomplicated acute pain and VOC
- Complicated acute pain and VOC
- Chronic pain, tolerance, and physical dependence
- Acute-on-chronic pain
- Excessive/inappropriate opioid use
- Chemical coping/social chaos/somatization/depression/ behavioral complications
- Addiction (not the same as physical dependence)
- Misuse or diversion



Pain Treatment Behaviors to Cultivate Within Your Team

- Consistency of treatment
- Open discussion with all patients
- Accept patients' report of pain unless there is valid contradictory evidence
- Accountability of patient and of treatment team
- Open, team discussion of complex patients
- Family/Support System Involvement
- Utilization of behavioral health resources
- Restrictive care plans when warranted

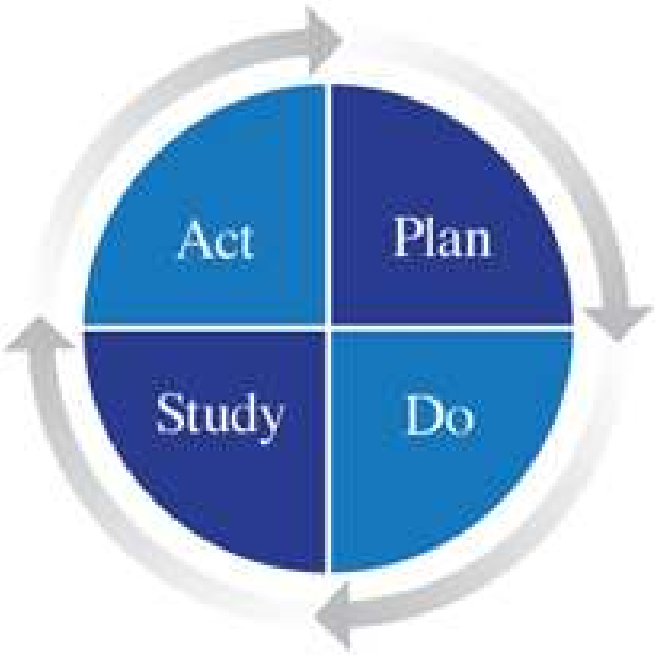
Concept Map and Multi-factorial Model



Quality Program

Develop a plan for monitoring your progress with pain management

- Write down, advertise, and monitor metrics of success
- Perform QI interventions, PDSA cycles to improve metrics



QI, quality improvement; PDSA, Plan-Do-Study-Act.

Scenario 3: Complex In-patient Pain Management

- Same patient, 1.5 hrs after analgesia:
  - O2 Sat 81% at 3L NC O2
  - RR 8/minute
  - Intern paged and notified of changes
  - O2 rate increased to 5L O2
  - Patient's O2 sat increased to 95%
  - MD arrived at bedside
  - Patient still arousable, but very drowsy
  - RR continued at 8/minute
  - Rapid Response Team called → 5 min
  - ABG pH 7.26, pCO2 66
  - 1mg naloxone ordered and IV pushed[19,20]
  - RR increased to 13ml/hr. Transferred to stepdown unit for close monitor while restarting PCA.

[19]O'Brien CP et al. *Ann N Y Acad Sci*. 1978;311:232-240.
[20]Clarke SF et al. *Emerg Med J*. 2005;22(9):612-616.

Rounds the Following Day

- Patient reported PCA dose is just right
- Patient reported using oxycodone 5 mg only 8 tabs daily
- History of lost filled bottles, drug abuse, and prison revealed[21-23]
- Patient again hypoxic and very drowsy even on po opioids
- Concern that patient is not taking the amount of medications he claimed
- Patient defensive about home medication use when asked if the dose he gave was the correct dose
- Led to heated discussion[24]

PCA, patient controlled analgesia.

[21]Savage SR et al. *Addict Sci Clin Pract*. 2008;4(2):4-25.
[22]Savage SR. *Curr Psychiatry Rep*. 2009;11(5):377-384.
[23]Weaver MF, Schnoll, SH. *Adv Pain Management* 2(2): 68-75, 2008.
[24]Katz NP et al. *Anesth Analg*. 2003;97(4):1097-1102.

Small Groups

Questions for the Group

- Do you have an institutional or group approach to this kind of patient?
- Do members of your group practice treat this patient the same?
- How to manipulate medications for rest of inpatient stay?
- Keep this patient in the practice?
- Continue to prescribe for this patient as an outpatient?

Principles That Might Inform Your Policy

- Trust in patients' reports of pain
- Be familiar with patient prior to acute opioid dosing (know tolerance history)[12-15]
- Appropriately use PCA[16-18]
  - Bolus, PCA, and basal doses
  - Use of opioid conversion tables
- Manage opioid overdose[19-20]
  - Naloxone (repeated doses if necessary)
  - Withdrawal of opioid
  - Appropriate monitoring
  - Reintroduction of lower dose of opioid
- Correlate, monitor for opioid misuse[21-24]