The Art and (very Little) Science of Evaluating Risk and Tapering Opioid Medications

Who, Why, When and How

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THE Soapbox
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SOAPBOX SOX

Objectives

- Identify common complications and co-morbidities associated with opioid prescribing
- Discuss patient work-up options to ensure medical risk mitigation when prescribing opioids
- Learn to design most appropriate type of taper for particular patients
- Gain skills at trouble shooting taper problems to avoid derailing

Sometimes

"We found a bunch of these clogging your arteries. They're cholesterol pills."

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Case #1: Complex Comorbidities vs. Iatrogenesis Multiforme

- 55 year old man new to KPNC with axial low back pain since 1980's.
- S/P anterior fusion with prosthetic disk 2002, 2006. Constant low back pain without radiation.
- New chest wall pain since falling off the toilet. Difficulty urinating, permanently disabled.

Past Medical History:

- 9 knee surgeries
- Hx of melanoma 1991
- Hx of interstitial nephritis requiring dialysis
- Hx of alcohol abuse, in AA since 1983
- Hx. of abusing: carbisoprodol, diazepam, codeine, oxycodone

Medications

Medication Detail

	Quantity	Refills
METHADONE 10 MG ORAL TAB **(Discontinued)**	1800	0/0

Sig : Take 15 tablets orally 4 times a day
Route: Oral
Reason for Discontinue: Continue Therapy
Class: Fill Now
Order #: 135085156

2 Years Ago: methadone 40 mg QID

400% increase in 2 years

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Digression #1: Opioids and Low Back Pain

No evidence of efficacy for opioid medication for axial low back pain past 16 weeks

Axial low back pain is one of the most difficult to treat pain conditions and *rarely if ever* responds to pharmacotherapy

Comorbidities:

- Hypertension – hydrocholothiazide, metoprolol
- Hyperlipidemia – on simvistatin
- Depression – on citalopram 60 mg PHQ9=19
- No libido and poor sexual function
- Sleep apnea (refusing CPAP)
- Bladder outlet problem – on tamsulosin
- Chronic nausea – on promethazine
- History of melanoma and interstitial nephritis

Case 1: The Physical Exam

- Alert, oriented and appropriate
- Pale, puffy, slightly feminized features
- Overweight
- Walks with a cane
- Some allodynia generally to light touch
- Examination maneuvers painful
- Exquisitely tender along mid axillary line
- Extreme de-conditioning

The “B.E.S.T” Workup

- Bone Density
- EKG
- Sleep study
- Testosterone, total AM

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The Workup:

469	Qtc
41	Total Testosterone
75	SpO2
-2.4	T score

Digression: QT prolongation

Center for Substance Abuse Treatment Consensus Panel Recommendations:

- **Inform patient of risk**
- **Clinical history**
  - structural heart disease, arrhythmia, and syncope.
- **Obtain EKG**
  - Pretreatment
  - After 30 days
  - Annually
- **More frequent EKG**

  Dose > 100 mg daily
  unexplained syncope or seizure

- ***QTc>450 and < 500***
  - More frequent EKG
  - Risks vs. benefits
- ***QTc> 500***
  - Discontinuation ?
  - Contributing factors?
  - Alternative?
- ***Be aware of interactions***
  - SSRI
  - antibiotics
  - Psychotropics
  - antiemetics

Krantz et. al Annals of Internal Medicine 2008.

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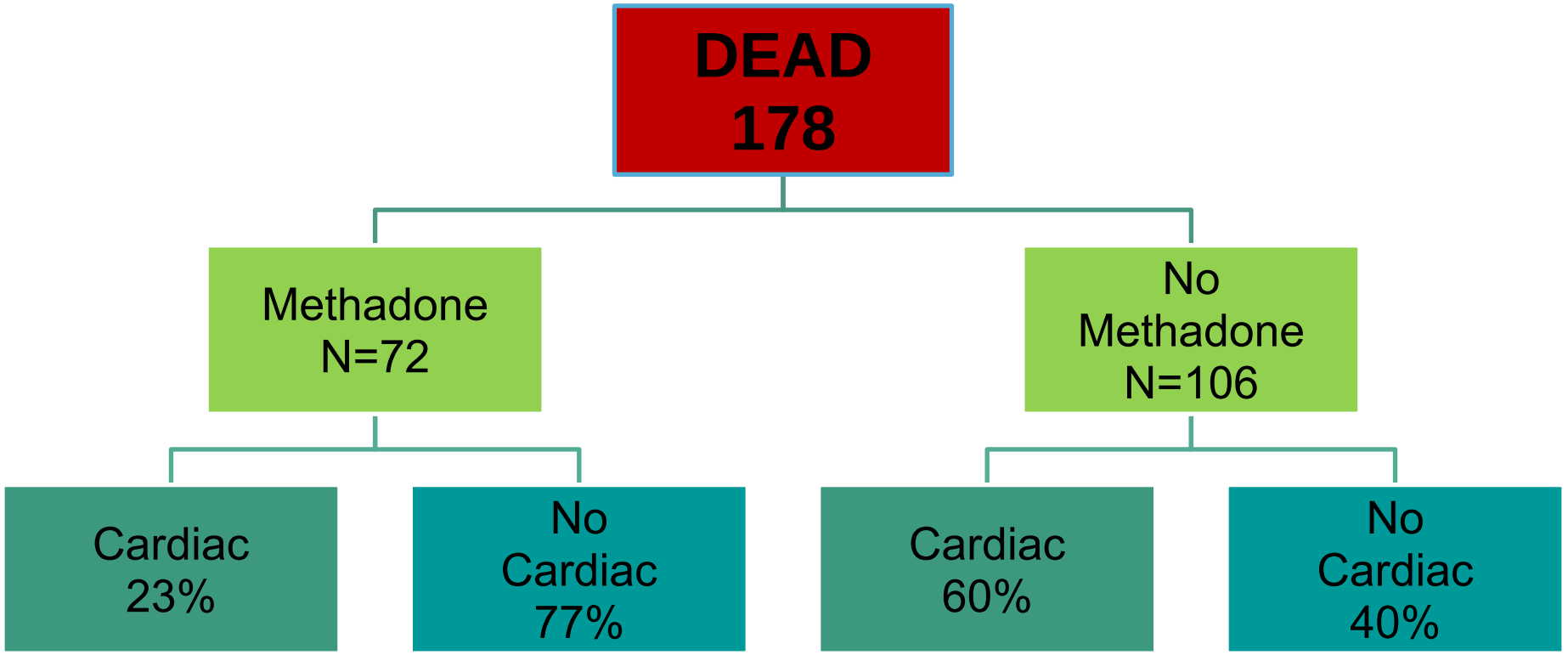
Sudden Cardiac Death and Methadone



Chugh SS, et.al. *A community-based evaluation of sudden death associated with therapeutic levels of methadone*. Am J Med 2008

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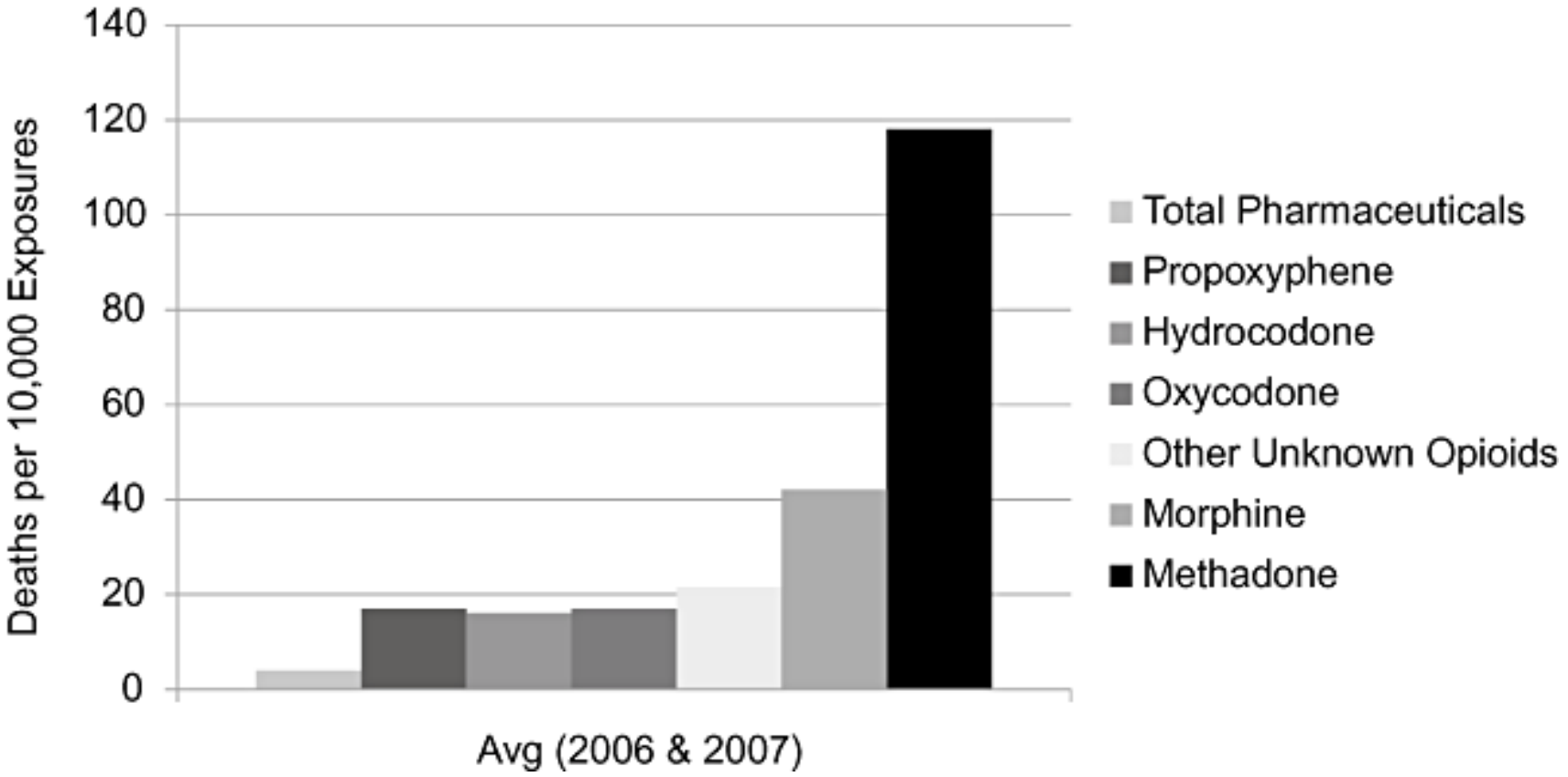
An Analysis of the Root Causes for Opioid-Related Deaths



Pain Medicine
pages S26-S35, 13 JUN 2011 DOI: 10.1111/j.1526-4637.2011.01134.x
http://onlinelibrary.wiley.com/enhanced/doi/10.1111/j.1526-4637.2011.01134.x/

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Androgen Deficiency

- Common
- Quick
- Profound
- Reversible (usually)

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CLINICAL RESEARCH STUDY

THE AMERICAN JOURNAL of MEDICINE®

Elucidating Risk Factors for Androgen Deficiency Associated with Daily Opioid Use

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	Odds Ratio	Confidence Interval
Duration of Action		
long vs. short	5.78	2.44 -13.67
Dose		
10 mg short	1.24	1.07 -1.44
10 mg long	1.02	1.00 -1.03
Age	1.01	0.99 – 1.04

Adjusted Odds Ratios for Androgen Deficiency in Patients with BMI <30, No Diabetes, No Hypertension, and No Hyperlipidemia

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Does Opioid Use for Pain management Warrant Routine Bone Density Screening in Men?

Testosterone Range	Normal	Osteopenic	Osteoporotic	Total
hypogonadal	11(50%)	9 (41%)	2 (9%)	22 (27%)
Non-hypogonadal	34(58%)	20 (34%)	5 (8%)	59 (73%)
total	**45(56%)**	**29 (36%)**	**7 (8%)**	**81 (100%)**

Fortin JD et. al. Pain Physician 2008; 11:4: 539-541

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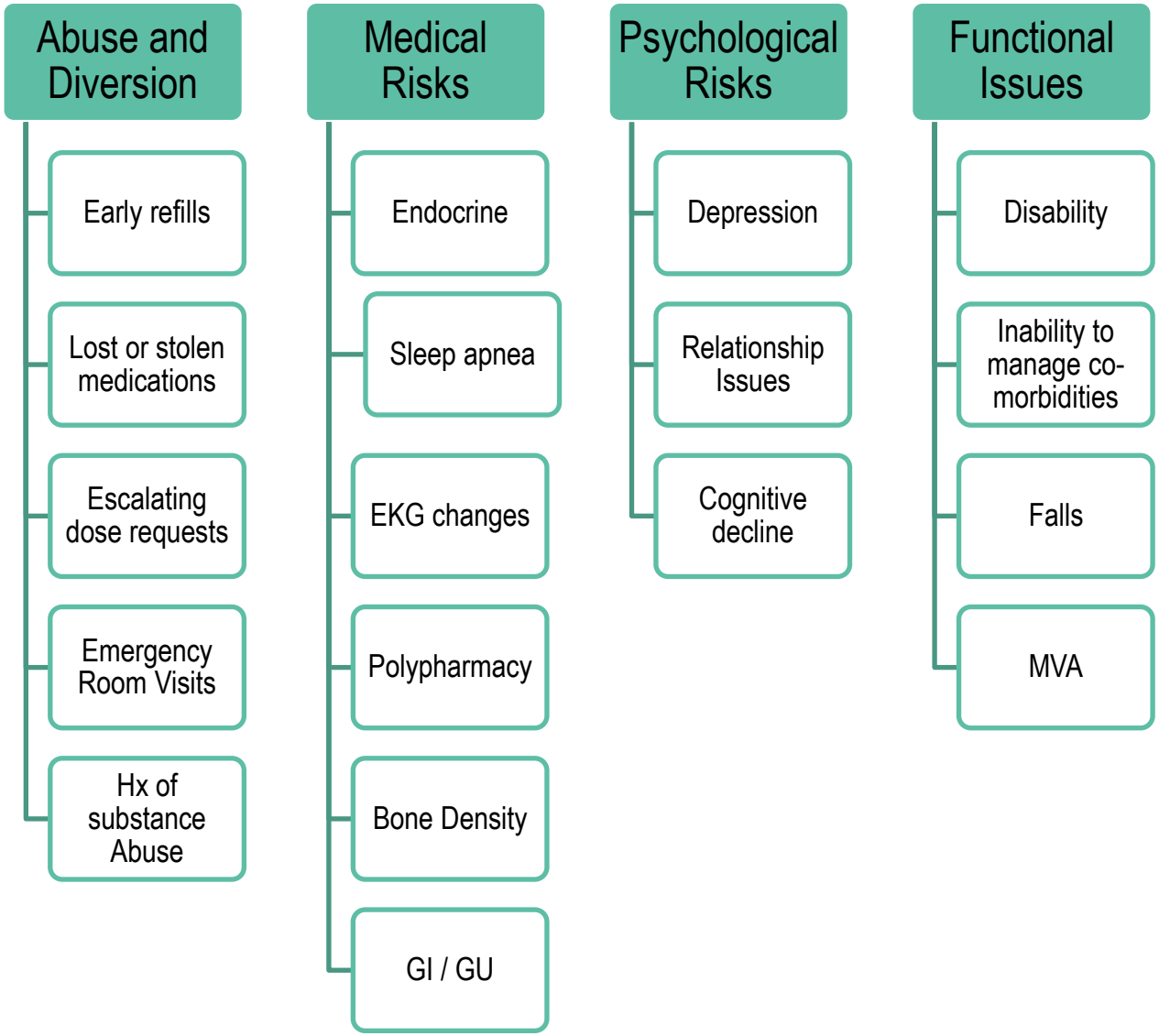
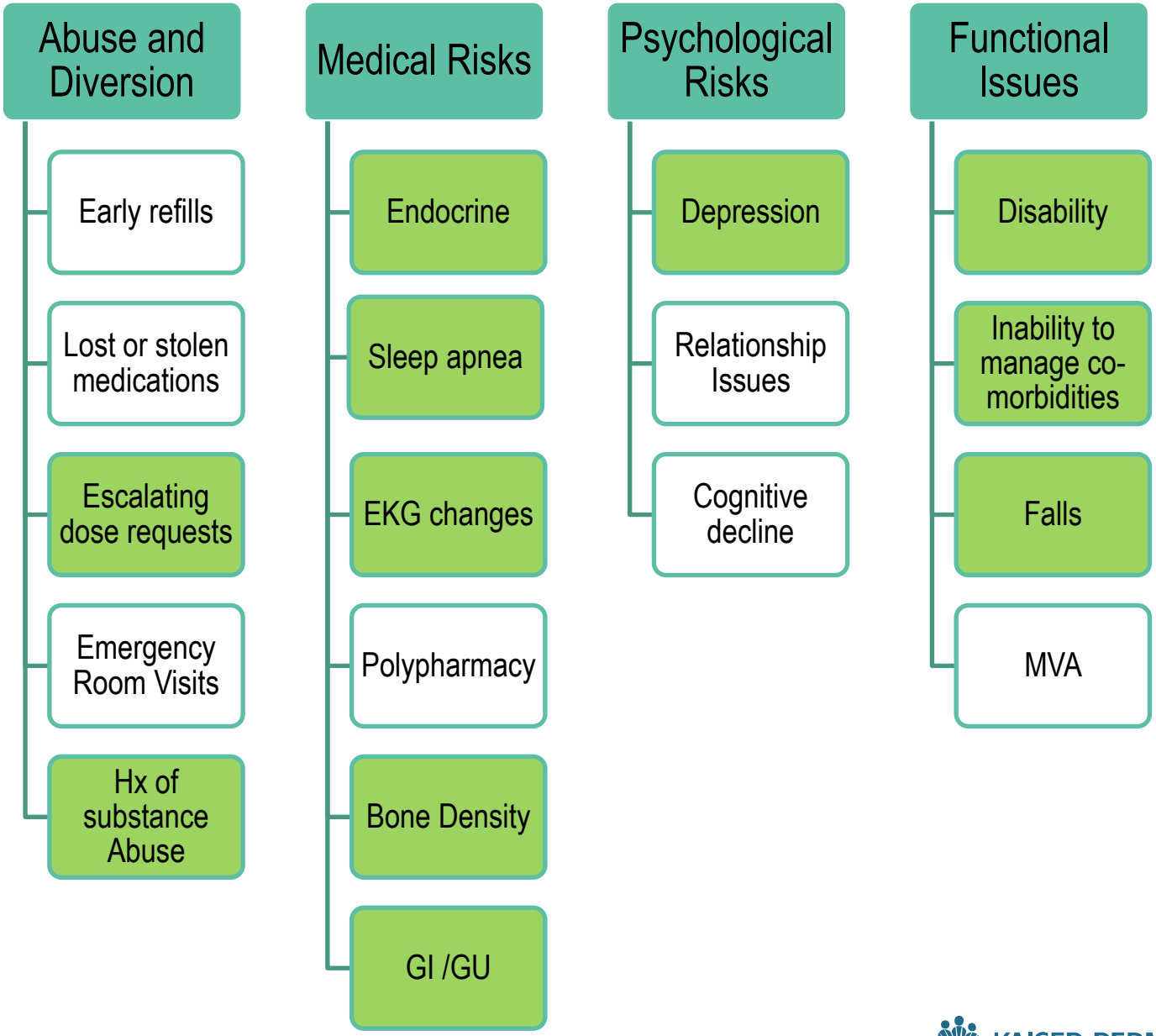

Abuse and Diversion
Early refills
Lost or stolen medications
Escalating dose requests
Emergency Room Visits
Hx of substance Abuse
Medical Risks
Endocrine
Sleep apnea
EKG changes
Polypharmacy
Bone Density
GI / GU
Psychological Risks
Depression
Relationship Issues
Cognitive decline
Functional Issues
Disability
Inability to manage co-morbidities
Falls
MVA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And of Course…

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Patient Expectations of Pain Relief with Opioids (20 women and 27 men)

Domain (PCOQ)	Patients Criteria (mean)	Reduction obtained	T	Cohen's d
Pain	50.91	11.93	10.89	3.21
Emotional distress	34.62	-0.43	8.25	2.44
Fatigue	40.62	3.89	10.25	3.02
Interference	49.34	10.04	8.91	2.63

Pain Res. 2012; 5: 15–22.

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Taper?
Don’t Taper?

What is an Opioid Taper?

A opioid taper is a progressive decrease in the amount of opioid taken
with a goal of leading to reduced risk and or opportunity for greater overall quality of life

(for the patient).

When to Taper

When what the drug is doing TO the patient is more than what the drug is doing FOR the patient

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Who to Consider for Taper

- Motivated patients
- Young patients
- Patients who say “it’s not working”
- Patients who say “it takes the edge off”
- Patients with diagnosable hyperalgesia
- Patients with declining function despite opioids
- Patients on opioids and complex polypharmacy
- Patients whose underlying pain issue may have resolved

Who not to taper

- Addicted Patients
- Palliative Care Patients
- Psychiatrically fragile
- Pregnant patients
- Resistant patients?

Rules of Thumb for Tapering

- The longer on opioids the slower you go
- small currency
- Down is easier than off
- Rule of thirds
- Sweet Spot: 5-10%

The best taper is the one that works

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Taper Schedule Design

Name: ms

DRUG TO TAPER	PILLS SIZE	dosage	# TIMES DAILY	TOTAL DAILY DOSE
METHADONE	10	15	4	600
	5			

GOAL DOSE	INTERVAL	start date	% reduction min	% reduction maximum
0	4	5/4/2010	10	20

Tuesday METHADONE Taper Schedule for ms

date	% drop	Daily mg	#/DAY	# RX	mg change
5/4/2010	10	540.0	54.0	1512	60.00
6/1/2010	10	485.0	48.5	1358	55.00
6/29/2010	11	430.0	43.0	1204	55.00
7/27/2010	13	375.0	37.5	1050	55.00
8/24/2010	15	320.0	32.0	896	55.00
9/21/2010	17	265.0	26.5	742	55.00
10/19/2010	11	235.0	23.5	658	30.00
11/16/2010	13	205.0	20.5	574	30.00
12/14/2010	15	175.0	17.5	490	30.00
1/11/2011	17	145.0	14.5	406	30.00
2/8/2011	10	130.0	13.0	364	15.00
3/8/2011	12	115.0	11.5	322	15.00
4/5/2011	13	100	10.0	280	15.00
5/3/2011	15	85	8.5	238	15.00
5/31/2011	18	70	7.0	196	15.00
6/28/2011	14	60	6.0	168	10.00
7/26/2011	17	50	5.0	140	10.00
8/23/2011	10	45	4.5	126	5.00
9/20/2011	11	40	4.0	112	5.00
10/18/2011	13	35	3.5	98	5.00
11/15/2011	14	30	3.0	84	5.00
12/13/2011	17	25	2.5	70	5.00
1/10/2012	20	20	2.0	56	5.00
2/7/2012	25	15	1.5	42	5.00
3/6/2012	33	10	1.0	28	5.00
4/3/2012	50	5	0.5	14	5.00
	100	0	0.0	0	5.00

Case 1 Revisited 6 months later

- Pain is no worse on half the dose (320 mg)
- Feels ‘100% better’ physically
- Emotionally better
- Testosterone 222 ng/dl
- In process of getting CPAP
- QTC = 395
- Actively participating in multi-disciplinary pain program

Case 1 Revisited 2 years later

- Off methadone
- On buprenorphine 8 mg daily
- No longer needs cane to walk
- Sleep apnea resolved
- Testosterone is 299 ng/dl
- Walking daily for exercise
- Engaging in volunteer work

Digression: Post Acute Withdrawal Syndrome (PAWS)

- Many people will get recurrences of symptoms similar to withdrawal for weeks to months after discontinuation of opioids
- Risk for returning to opioid based therapy
- Implement a PAWS plan
- Plan:
  - Recognize
  - Reassure
  - Relief
  - Ride it out
  - Do NOT restart opioids during this period if possible

The Buy in:

- Forewarn
- Option to return
- Reassure
- Educate
- Support
- Treatment plan in writing

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Troubleshooting the Taper

- Reassure Reassure Reassure
- Adjuvant medications
  - Clonidine
    - 0.1-0.2 mg BID or TID
  - Immodium
  - Benzodiazepines only at the last 7 days
  - Baclofen?
- Hold or slow or reverse the taper
  - 30-50%
  - 60-75%
- Watch the clock
- The lower the dose the slower you go

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Summary

- Drugs are neutral
- Don’t blame the patient or the drug
- The goal is to make the patient better
- Risk benefit assessment is critical
- Design appropriate taper type
- Modify the taper as appropriate
- Goal is not always off…

We have created diseases in patients that they are unable to appreciate or verbalize. In some cases medications have altered the their ability to make rational decisions regarding the risks and benefits of therapy.

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Questions and Comments

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