Safety Conscious Prescribing

Deborah V. Gross, MD, LFAPA, FASAM, Lifetime DABAM, Pathway Healthcare Medical Director, State Lead

No disclosures.

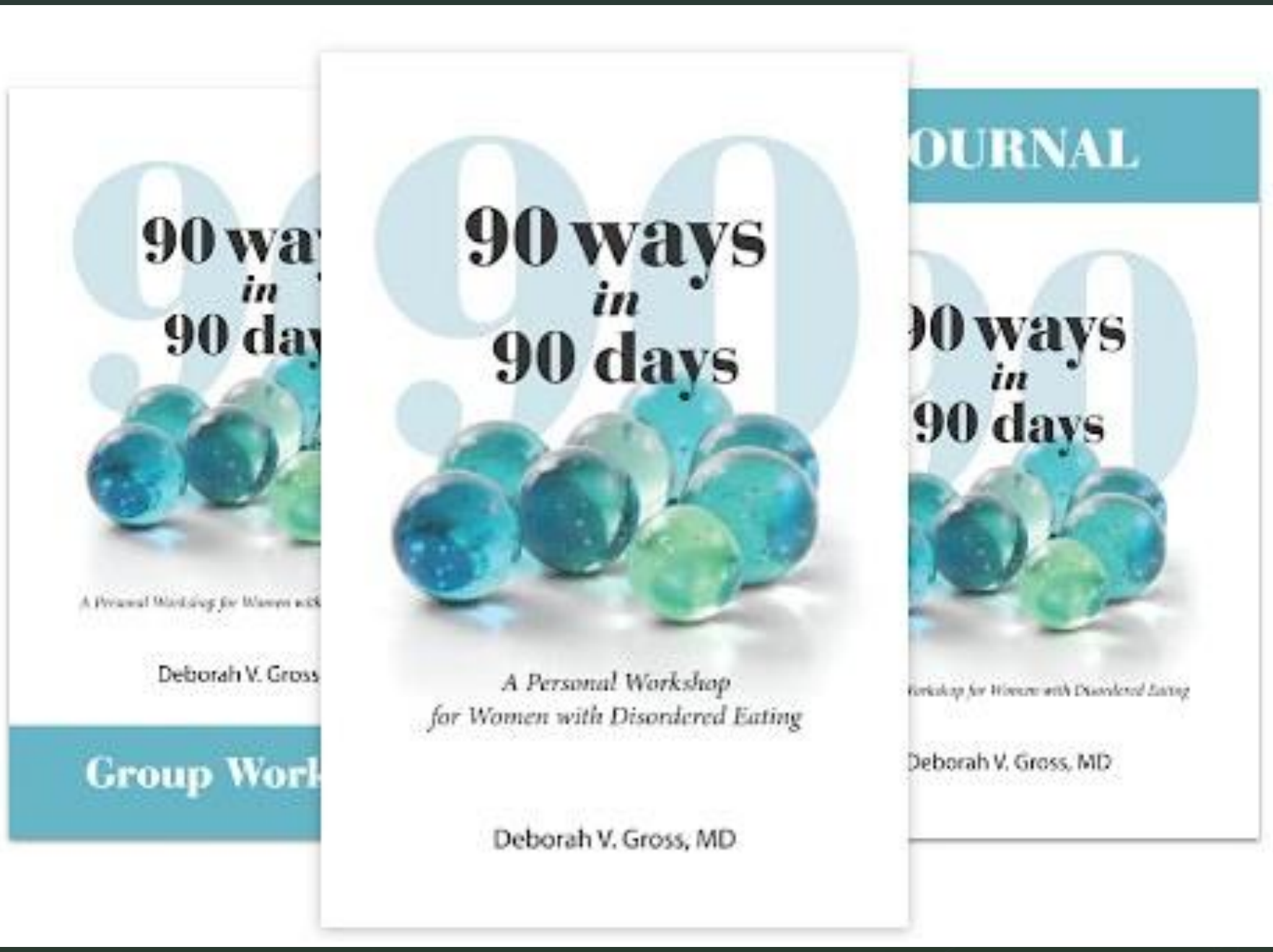
Couple of announcements...

Announcements

BBQ Reception tonight: 6:15 at Ag Museum.

MSSAM lunch tomorrow: Members & associates, interested potential members, join us!

Visit our wonderful sponsors & participate in the drawings for some great giveaways!


90 ways
in
90 days
A Personal Workshop
for Women with Disordered Eating
Deborah V. Gross, MD
Deborah V. Gross
Group Work
JOURNAL
Deborah V. Gross, MD

On Amazon

Direct purchase, reduced price: Robert Scott 601-543-9823

All proceeds to McCoy House

90 Ways in 90 Days: A Personal Workshop for Women w/Disordered Eating

Deborah V. Gross, MD

At the end of this presentation, participants will be better able to…

01

Identify safety sensitive patients.

02

Name 7 essential brain functions for safety.

03

Prescribe more safely for higher risk patients.

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What's a "*safety sensitive patient*?"

A safety sensitive patient (SSP) is someone at risk for med AE due to…

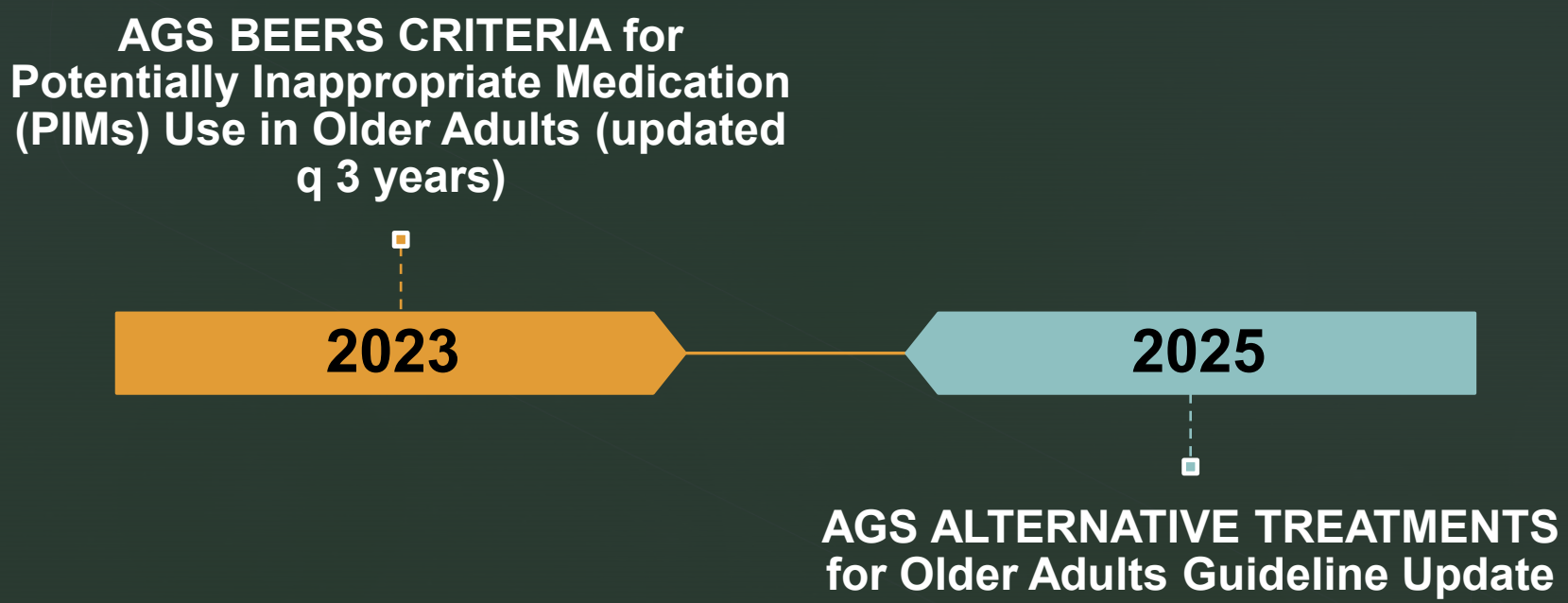
PHYSICAL factors: propranolol in a pt w/asthma

MENTAL/EMO factors, e.g., benzo in pt w/SUD

OCCUPATIONAL factors: Someone responsible for others' health/safety can do harm if impaired by prescription/OTC med &/or alcohol or drugs

Canary in the coal mine…

American Geriatrics Society
americangeriatrics.org



AGS uses 5 criteria to identify "potentially inappropriate meds" (PIMs) for older adults

1. Over 65, NOT in hospice/palliative care
2. Have certain health conditions
3. Med interacts w/other meds
4. Harmful side effects outweigh benefits
5. Can't be taken or require limited dosage d/t renal effects

From American Geriatrics Society (AGS) website (www.americangeriatrics.org)

New York (July 23, 2025) — Today the American Geriatrics Society (AGS) announced the release of the Alternative Treatments to Selected Medications in the 2023 American Geriatrics Society Beers Criteria® (DOI: 10.1111/jgs.19500), an updated clinical resource designed to help healthcare professionals identify safer, more appropriate treatment options for older adults. This companion tool builds on the 2023 AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults (DOI: 10.1111/jgs.18372) which remain one of the most frequently cited reference tools in geriatrics, identifying medications which may be inappropriate to prescribe to older people who are not receiving end of life care.

www.guidelinescentral.com

The gift that keeps on giving is a solid clinical practice resource for useful clinical information!

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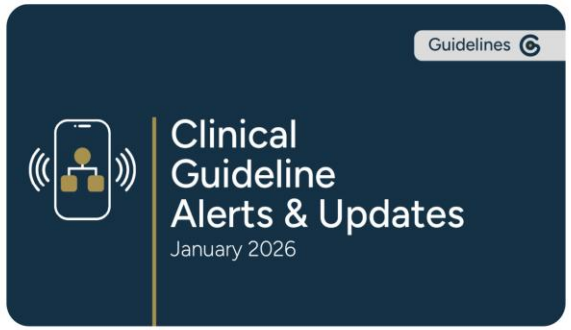
guidelinecentral

InSights Hub

Clinical Guideline Alerts & Updates - January 2026



Guidelines

Published: February 02, 2026

A consolidated list of all the latest clinical practice guidelines that were published or updated during the month of January 2026.

- Early Recognition and Intervention for Poststroke

linecentral.com

Primary audience for these updated guidelines

- Front-line clinicians who are…
- Caring for older adults who need pharma alternatives and/or non-pharma management options.
- Clinical judgment is paramount, so the list is not prioritized BUT…
- Where there's clear consensus based on practice guidelines, comments and preferred order of alternatives are noted.

What is *safety conscious prescribing*?

Safety Conscious Prescribing

1. Is RELATIVE. No such thing as 100% safe prescribing. Uncertainty is the norm in clinical practice.
2. Goal: BALANCE safety with the uncertainty that attends every human endeavor.
3. JOB ONE: “FIRST DO NO HARM,” neither under- or over-prescribing.
4. The goal is “BALANCED prescribing.”

“Balanced prescribing”

“…is a process that recommends a medicine appropriate to the patient’s condition and, within the limits created by the uncertainty that attends therapeutic decisions, a dosage regimen that optimizes the balance of benefit to harm.”

JK Aronson, BJCP 2006

To get to balanced prescribing…

The choice of medication must be *appropriate* to both patient and condition (e.g., match the physiology of the disease)

with no contraindications to its use, and

carry minimal risk of (undue) harm.

Evidence of Poor Prescribing

- “Inappropriateness” (wrong med, wrong dose, contraindicated)
- Polypharmacy (5+ drugs): 10-17% of US gen pop; 40-65% of older adults
- Underprescribing effective meds or non-pharma treatments
- Multiple med errors
- Excess and/or avoidable adverse reactions

Examples of Safety Sensitive (AKA Higher Risk) Patients…

- Pt in a safety sensitive occupation with "potentially impairing condition" like addiction
- Pt w/history of addiction or substance misuse
- Over 65, multiple medical problems, multiple meds ("polypharmacy")
- People with limited cognitive reserves/dementia

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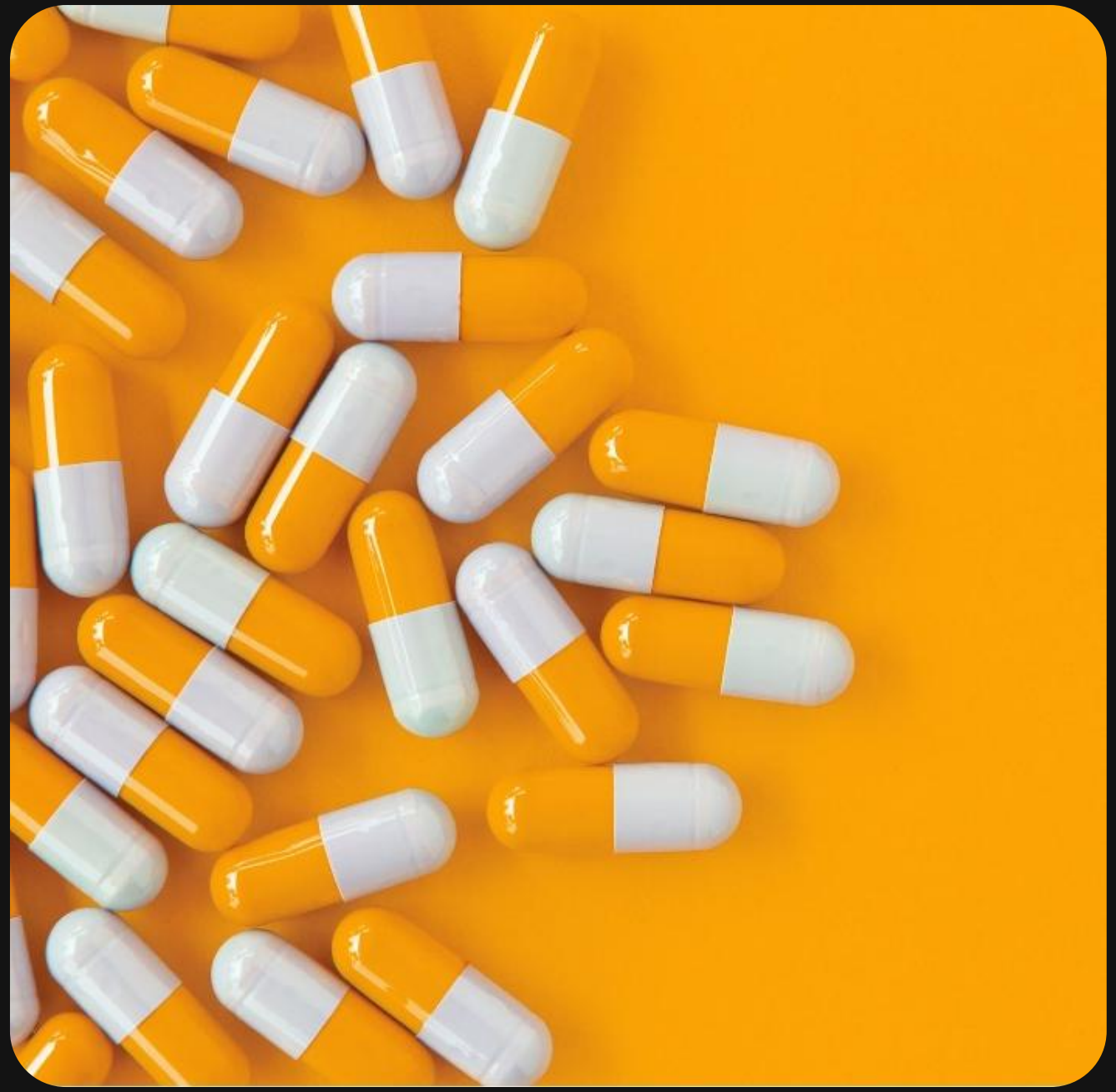

In treating safety sensitive pts, focus on:

AVOIDING higher risk meds and classes of meds to reduce adverse events.

“BALANCED prescribing.”

Maximize NON-PHARMA alternatives, esp. for things like pain and insomnia.

“Life gets mighty precious when there’s less of it to waste.”

Bonnie Raitt
Nick of Time

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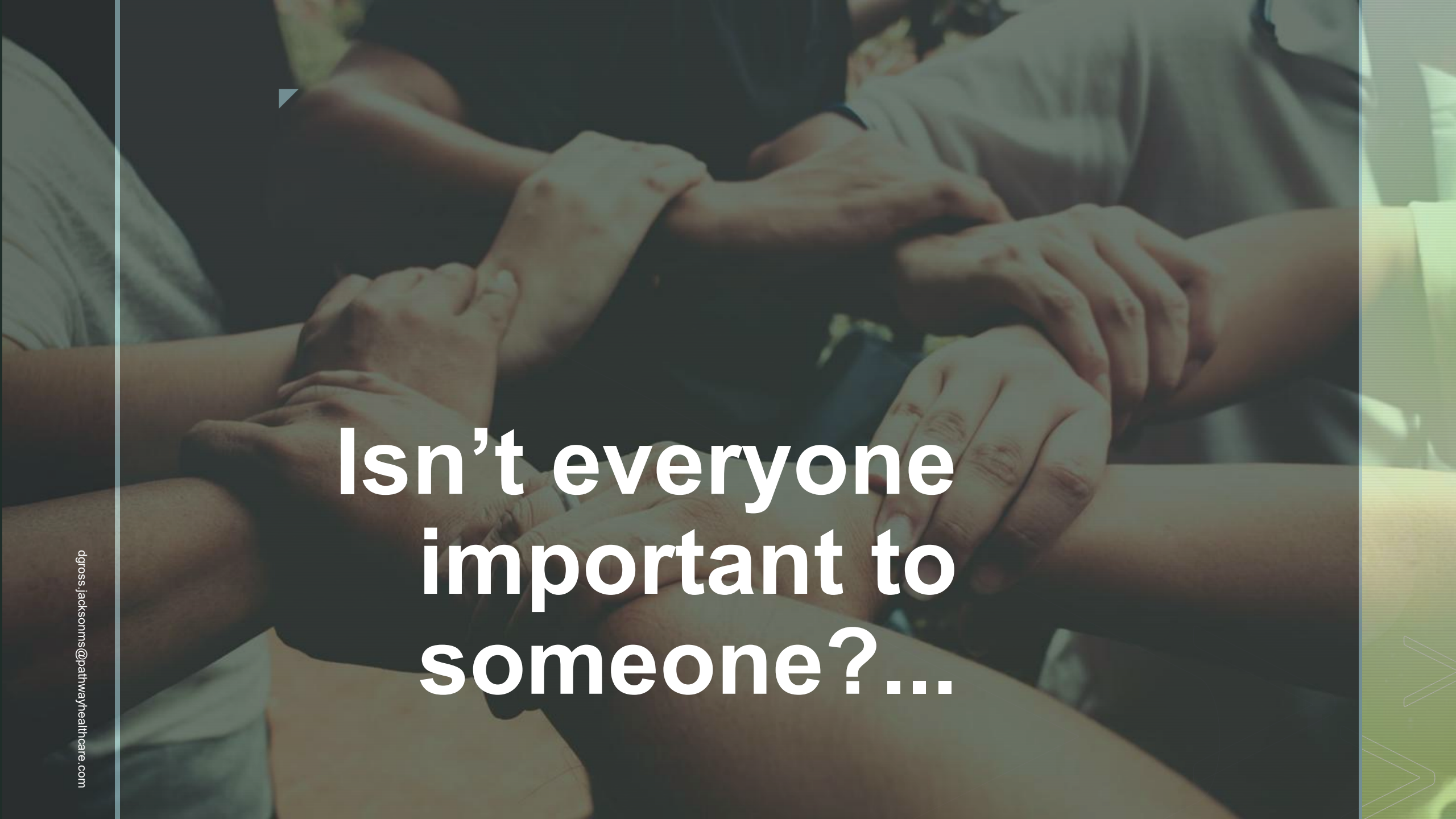

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Safety sensitive occupations involve…

- Health, safety, national security
- Responsibility for safety of others
- High-level trust and confidence
- Impairment→ risk of harm, liability

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Examples of safety sensitive workers…

- Medical personnel
- First responders
- Transport workers (planes, trains, ships, buses, trucks, pipelines…)
- Hazardous materials or equipment, nuclear power

(Anyone with a gun?...)

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Safer prescribing is about MAXIMIZING & PRESERVING high-grade executive functions.

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Executive brain functions…

- Impulse control
- Emotional regulation
- Problem solving, flexible thinking
- Working memory
- Self awareness
- Planning, prioritizing, organizing
- Self motivation

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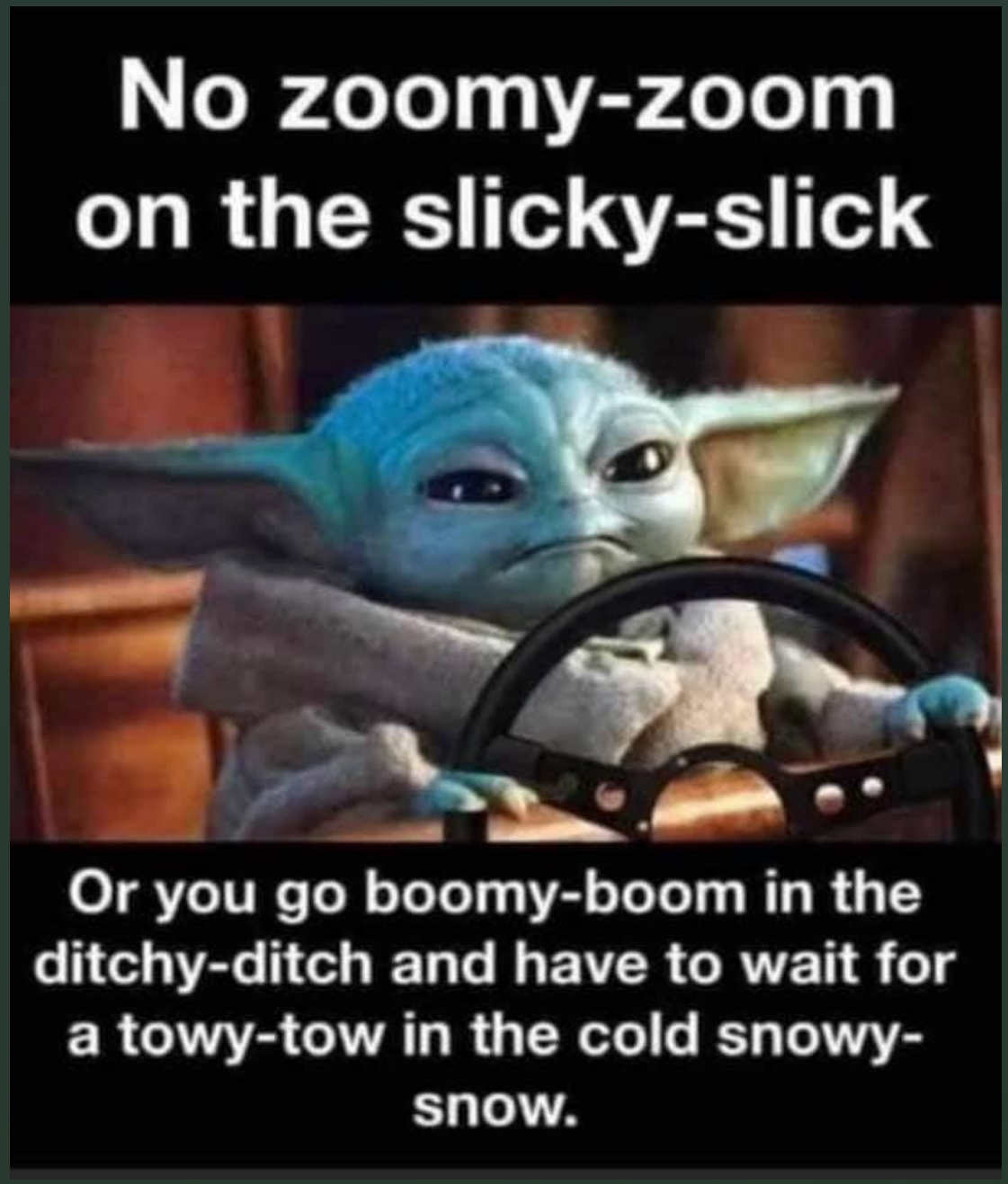

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Safety sensitive (higher risk) patients…

People in safety sensitive occupations

People w/addictive disorders or in recovery

Older people

People with limited cognitive reserves/dementia

People w/limited emotional reserves (poor coping)

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Potential causes of reduced executive brain function:

- Illnesses, mental & physical
- Stress/distress
- Pain, physical & emotional
- Controlled substances, other meds
- Drugs of abuse, addiction itself

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Safety Conscious Prescribing (Do No Harm…)

TO patient…

- Know their diagnoses
- Know their risks
- Know their rules (e.g., if under monitoring)
- Help them not relapse
- Help them keep their job

THROUGH patient…

- Avoid known problems
- Avoid controlled substances
- Treat to full remission
- Refer prn (HLOC, psychotherapy, etc.)

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Consider effect of CONDITION & its TREATMENT on executive brain functions

- Physical capacity, speed, precision
- Judgement, appropriateness
- Communication, clarity
- Interpersonal skills
- Other conditions (e.g., addiction & co-occurrence)

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Prescribing Basics

DIAGNOSIS BEFORE TREATMENT

GOAL → full remission

ENCOURAGE (it's fiddly)

FREQUENT VISITS, MONITORING (PMP, UDS)

METICULOUS management of ADVERSE EFFECTS

AVOID CS, known problems

FULL USE of non-pharma

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Why add psychotherapy?

2/3 don’t recover fully, continue sub-threshold, residual sx

30% bipolar pts take < 70% meds

40-60% risk of non-adherence

Early onset/late dx → life consequences, developmental delay

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Acute psychosis, drug use, mania, and/or severely triggered trauma disorders…

Impaired reality testing, judgement, decision making, impulse control

Impaired communication, interpersonal skills, concentration

Unpredictability/reactivity

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Koob & Volkov: *Addiction dysregulates neural circuits and creates negative emotional states driven by reward & stress in three stages*:

Binge/Intoxication	• Focus is on rewarding effects • Basal ganglia • Driven by dopamine & opioid peptides
Withdrawal/Negative Affect	• Reward function decreases • Extended amygdala • Negative reinforcement drives behavior
Preoccupation/ Anticipation	• *Executive function deficits* • Prefrontal cortex • Craving, decreased ability to resist

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BIPOLAR DISORDER

- **CYCLES: mania/hypomania, depression, normal**
- ***AVOID ADM's (antidepressants), never use unopposed***
- **BOOTS ON THE GROUND, consents upfront, frequent visits**
- **IDENTIFY PATTERNS (triggers, onset, cycles), early warning**
- **Structure, sleep, CAREFUL w/changes, counseling**

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“Multitasker” Meds Can Reduce Adverse Effect (AE) Burden

- ATOMOXETINE: ADHD, cataplexy (anxiety, depression adjunct)
- BUPROPION: MDD, ADHD, smoking (wt, sex drive) (NOT anxiety)
- NALTREXONE: AUD, OUD (wt/Contrave, gain blocker)
- CLONIDINE: ADHD kids (adults), HTN, Tourette’s, pain (OUD, anxiety, sleep)
- GABAPENTIN: chronic pain, seizures (AUD, anxiety, sleep)
- PROPRANOLOL: CVD/HTN, migraine prevention, tremor (performance anxiety)
- SEDATING ADM: depression, anxiety, sleep (TRAZODONE, MIRTAZEPINE)

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First Line Medication for Mood & Anxiety Disorders

- Hx: What worked for pt before? For blood relatives?
- REAL MEDICINE: Antibiotic:aspirin = SSRI/ADM:BZO
- ADEQUATE TRIAL: 4-6 weeks at any given dose ADM
- ADVERSE EFFECTS: Dose & rate of rise
- AIM for therapeutic dose; sit tight at trouble spots

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Medication Treatment of Major Depressive Disorder

- Get full remission, continue for a year symptom-free
- Taper slowly, watch closely (not at holidays or during divorce…)
- Many do better to stay on meds, esp. if comorbid anxiety
- Long-term meds if 3+ distinct episodes in 5 years

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1. *Anxiety* is universal.

2.*Anxiety disorders* are medical illnesses.

3. Benzodiazepines are not first line for either.

Anxious people are anxious about everything, including meds to treat their anxiety….

- **EXPLAIN THE PLAN, SEE OFTEN, esp. at first**
- **COLLABORATION less threatening, enhances rapport**
  - **Options, AEs, usual doses, etc. Be specifics BUT…**
  - **If they say, "just tell me what to do," DO THAT**
  - **ADVISE: NO DR. GOOGLING & don't read the insert if makes you anxious (written for lawyers, not us)**
  - **DISCUSS common AE's & how we'll handle them in as much detail as THEY need**

Anxiety Disorders, First-Line Med Options

Generalized Anxiety Disorder:

SSRI/SNRI, buspirone (not prn)

Social/Performance Anxiety Disorder: **SSRI/SNRI +/- propranolol, paroxetine**

Panic Disorder:

SSRI/SNRI +/- hydroxyzine, gabapentin

OCD, Trichotillomania, Excoriation Disorder:

Clomipramine (Anafranil), fluvoxamine (Luvox)

Treatment-Resistant Anxiety (any cause):

quetiapine 50-150/max 300

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PTSD is a brain injury. The brain gets stuck in danger mode (ANS "fight or flight").

PSYCHOTHERAPY → learn patterns → early warning → manage sx better→ decrease UNPREDICTABLE reactions

TRIGGER → survival grade response to everyday event → symptomatic Rx: propranolol dials back reactivity, divalproex rage, prazosin for nightmares

Comorbid anxiety, depression, substance use → Rx as usual

AVOID BENZODIAZEPINES (paradoxical reactions)

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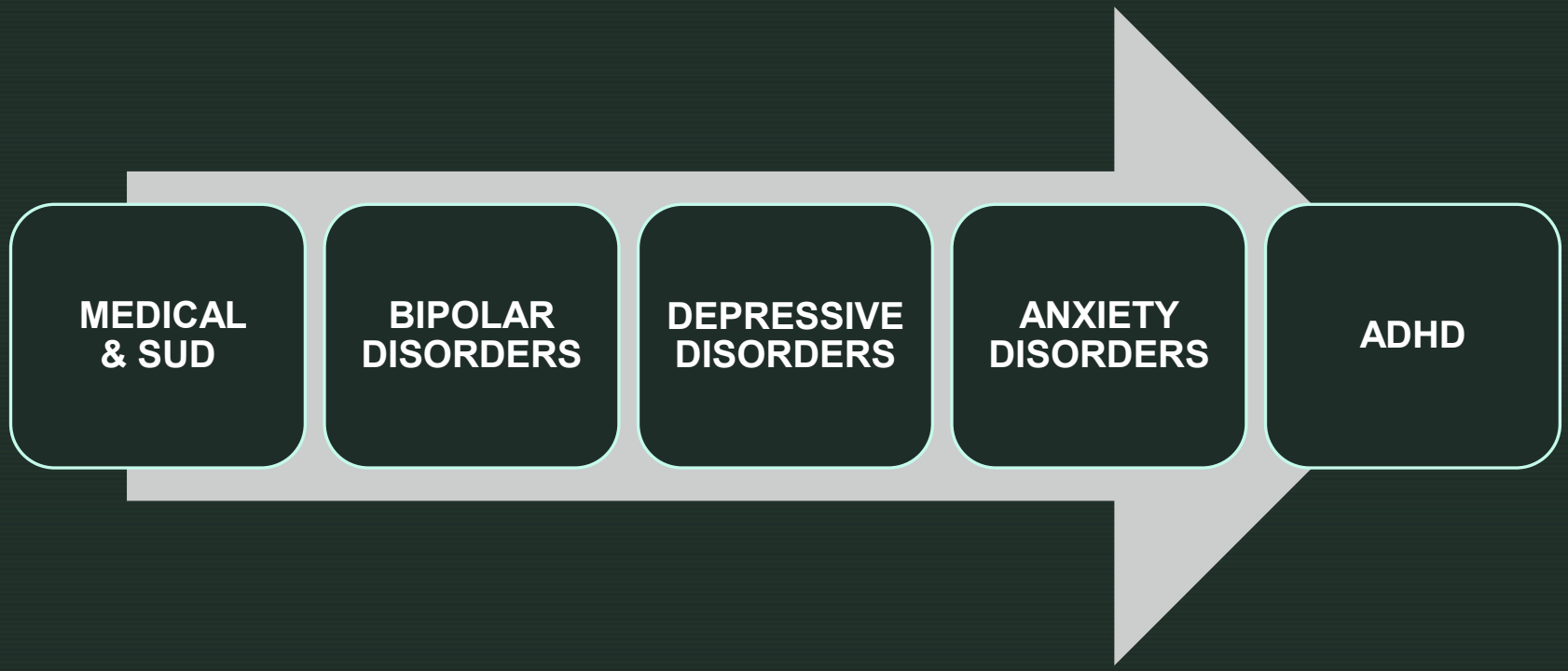
Prioritizing Treatment of Psychiatric Comorbidities



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ADHD in Safety Sensitive Workers

Treat CO-MORBIDITIES to remission

Check DIAGNOSIS (confirm with formal testing)

Most monitoring programs do not allow stimulants

Cognitive strategies *Mastering Your Adult ADHD*, by Otto, Perlman, *et. al.*

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ADHD in Safety Sensitive Workers

NONSTIMULANTS

- ATOMOXETINE (Strattera)
- CLONIDINE (Kapvay)
- GUANFACINE (Intuniv)

ANTIDEPRESSANTS

- TCA's (nortriptyline, desipramine)
- BUPROPION
- VENLAFAXINE

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Personality Disorders (”Disruptive” Workers)

ANTISOCIAL-disregard for others, rules

NARCISSISTIC-grandiose, no empathy

BORDERLINE-impulsive, emo unstable

PARANOID-suspicious, poor reality testing

OBSESSIVE COMPULSIVE-rigid, perfectionist

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SLEEP

- Know their rules, avoid CS, use non-pharma
- Good sleep hygiene RE naps, meds, exercise, food
- Treat psychiatric & sleep co-morbidities
- Consider switch hitters, e.g., sedating ADM, mood stabilizers, clonidine, guanfacine
- Melatonin up to 10mg, food aids absorption

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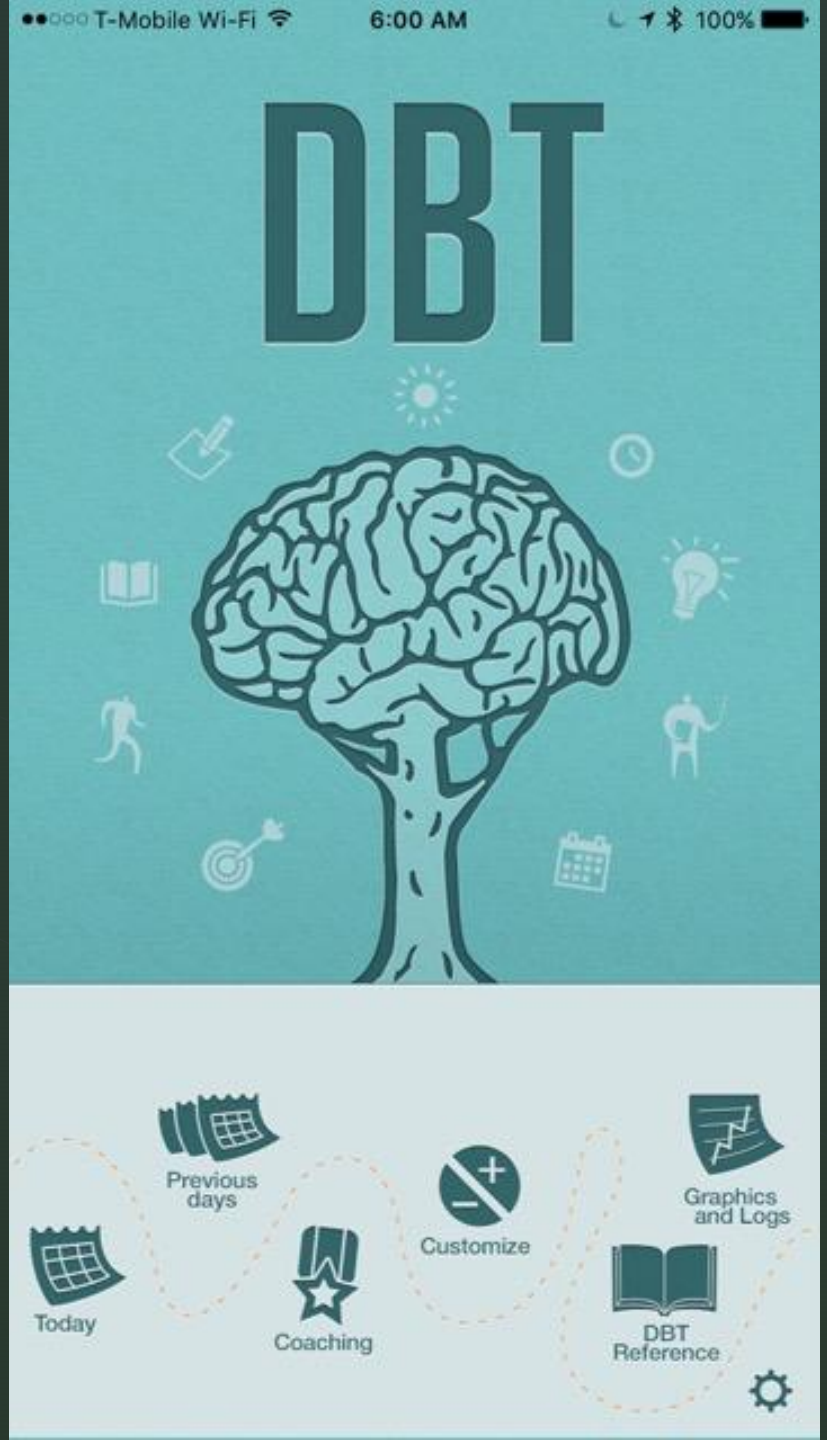

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Summary: Treating Psychiatric Disorders in Safety Sensitive Workers

- Solid therapeutic ALLIANCE, teamwork ATTITUDE
- Careful DIAGNOSIS, MONITORING, FOLLOW-UP
- Full use of NON-PHARMA elements
- AVOIDANCE of controlled drugs, problem meds
- Meticulous management of ADVERSE EFFECTS

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SAFER PRESCRIBING FOR ELDERS

FULLY REVIEW meds, with PMP & family input	Who fills the box? Who gives the meds? Hx falls?	"Deprescribe," decrease dose, use nonpharma
THINK AE or drug interaction 1st w/any new sx	SIMPLIFY schedule (glasses, sit to count, RE pets)	Prescribe necessary only, follow closely, family input

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Dementia/Cognitive Limitations

- In patients with limited cognitive means→
  - Reduced ability to safely self administer
  - Increased sensitivity to AE's, esp. cognitive
  - MUCH lower dosing, at least to start
  - All psychiatric/cognitive AE's magnified
  - Discomfort, your interventions misinterpreted

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Before Prescribing to Higher Risk Pt, Consider…

- Source of risk?
- Is any drug needed?
- NSAIDs + acetaminophen best for pain except briefly post op and/or palliative care
- Start at 50% of adult dose at most
- More frequent visits, boots on the ground (family)

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PIMs in hospitalized older patients: a cross-sectional study using the Beers 2015 criteria vs the 2012 criteria.

Proton pump inhibitors, benzos, and benzo agonist hypnotics accounted for 80% of the drugs that should be avoided in elders.

Clin Interv Aging 2017

NCBI.NLM.NIH.gov

PMCID MMC5644572

PMID: 29066875

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Polypharmacy

- More than 10 medications in the course of a hospital stay
- More than 5 medications in outpatients
- Longer lives, increased # of diagnoses, doctors
- Multiple meds for same problems

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Most often associated with problems in elders:

- Meds w/anticholinergic effects
- Sedative-hypnotics
- Narcotics
- Cardiovascular meds
- Misc. others (PPI's, anticoagulants, testosterone

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Use NO TEARS to review/document diagnoses and meds:

- **N**eed indication
- **O**pen questions to check pt understanding, adherence
- **T**ests & monitoring to confirm dx
- **E**vidence & guidelines (EBM, ? condition still present, responding)
- **A**dverse events
- **R**isk reduction/prevention (falls, etc.)
- **S**implification/switching

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Safe Prescribing Basics

PDMP every visit	GOAL → identify high risk pts	MEDICAL HX (CS, SUD)	AVOID controlled substances, known problems
FULL USE of non-pharma	METICULOUS management, frequent visits	REFER if indicated (psych, SUD, therapy)	BOOTS ON THE GROUND!

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GET RISK-RELATED INFO UPFRONT, ROUTINELY…

- General medical conditions, severity level
- Current medications w/dosages; alcohol hx
- Hx addiction, substance use/misuse (+/- FH)
- PDMP, every pt, every OV—delegate & train staff
- Boots on the ground (routine consent, upfront)

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PDMP Warning Signs

Multiple prescribers &/or pharmacies	**Multiple controlled drugs, esp. same class, high dose**
Early refills (=overtaking)	**Lots of self-pay, multiple names, addresses, dob**

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HIGH RISK

Half who die of OD:

- 4+ prescribers or pharmacies on PDMP, &/or
- Are on 100+ MME/DAY

50+ MME/d doubles death rate (cf. 20 or less…):

- OPIOID CONVERSION CHARTS/APPS HELPFUL
- Share facts w/PT & FAMILY (DOCUMENT)

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RED FLAGS for high risk— CONSIDER HELP, REFERRAL

- Hx overdose, chronic pain, SUD
- Demands for particular meds/doses
- Irritability, emotional over-reactivity
- Frequent phone calls
- Lost or stolen meds

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2022 CDC Guidelines for Prescribing for [*ACUTE*] Pain

NONOPIOID tmt (NSAIDS, nonpharm) at least as effective & less risky for most acute pain, incl. dental.

Opioids have sig. short & long term risk but still prescribed at higher doses for longer periods than recommended in the 2016 guidelines.

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FACTORS THAT INCREASE OVERDOSE RISK

- SEDATIVES, ANXIOLYTICS, MUSCLE RELAXERS, ETOH
- HX ADDICTION, OD, SUBSTANCE MISUSE
- HIGHER DOSES, LARGER AMTS, ER/LA FORMS, POTENCY
- PSYC ISSUES (ANX, DEPRESSION, PTSD, SI)
- OLDER, CACHECTIC, DEBILITATED
- CHRONIC RESPIRATORY (ASTHMA, COPD, SLEEP APNEA)

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2022 CDC III: How long to write & how to follow?

6. Write ONLY enough for expected duration of pain severe enough to require opioids.

7. Evaluate risk to benefit of cont'd ops within 1-4 wks, sooner if problems.

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2022 CDC IV: Assess risk, address potential harm.

8. Before/during op tmt, eval/discuss risk/harm, share decision, consider naloxone.

9. Before/during op tmt, review PDMP, check/risky CS scrips, doses, combos.

[10. Consider routine UDS if prescribing/subacute, chronic pain. Intervene prn.]

11. CAUTION RE BZO, sedatives, CNS depressants.

12. REFER for eval, possible tmt if OUD suspected.

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ADDRESSING POTENTIAL HARM

- DOES *POTENTIAL* BENEFIT OUTWEIGH *CLEAR & PRESENT* RISK OF USING OPIOIDS?
- IF SIGNIFICANT RISK, CAN SOMEONE "HOLD AND DOLE?" (BOOTS ON THE GROUND!)
- USE LOWEST DOSE, SHORTEST DURATION, IMMEDIATE RELEASE FORMS

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“THE ANALGESIC EFFECT OF NSAIDS, WITH AND WITHOUT ACETAMINOPHEN, IS EQUAL OR SUPERIOR TO THAT PROVIDED BY OPIOID-CONTAINING MEDICATIONS.”

Moore & Ziegler, et al. Benefits & harms associated with analgesic medications used in the management of acute dental pain: an overview of systematic reviews. JADA 1939. 2018: 149(4)256-265.e3.

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I will lift mine eyes unto the pills…

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