Minding Mental Health in Primary Care

CCRN's 3rd Annual

Minding Mental Health in Primary Care

CCRN
Collaborative CME and Research Network

Session 1 Agenda

Session 1		
9:10 – 9:30 am	When Depression is Also Anxious: Recognizing Anxious Distress in MDD	Margie Oakander
9:30 – 9:50 am	When Focus is the Symptom: ADHD Diagnosis and Management in Children and Adults	Jamil Jivraj
9:50 – 10:10 am	Misdiagnosis Matters: Distinguishing ADHD, Bipolar Disorder, and BPD	Mark Berber
10:10 – 10:35 am	Q&A	

When Depression is also Anxious: Recognizing Anxious Distress in MDD

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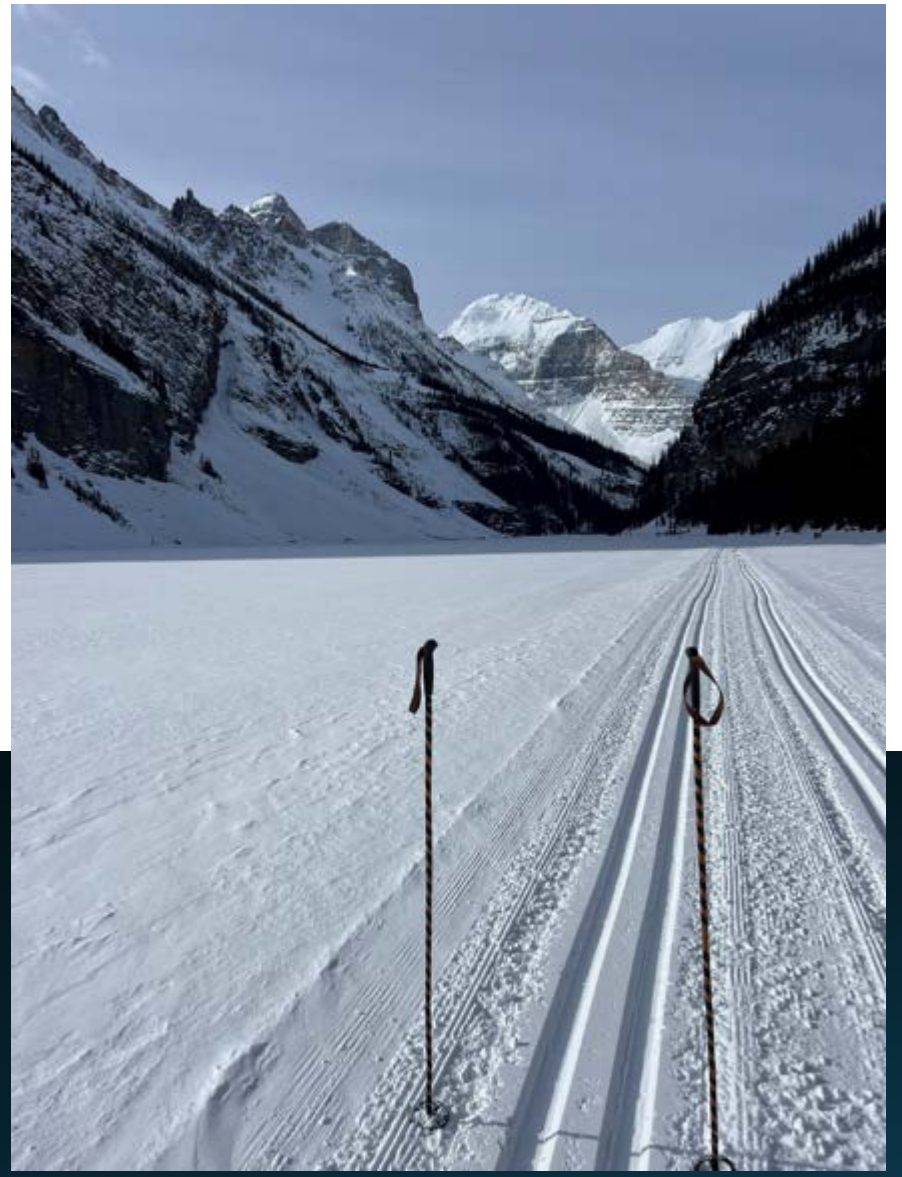
Honoraria:	CCRN, ABBVIE, Bausch, Eisai, Elvium, Janssen, Lundbeck, Otsuka, Pfizer

When Depression is also Anxious: Recognizing Anxious Distress in MDD



Dr. Margie Oakander
BSc(Hons), MD, FRCPC
Clinical Associate Professor,
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Learning Objectives

- Recognize the clinical features of anxious distress in MDD and differentiate it from generalized anxiety disorder.
- Describe the impact of anxious distress on patient functioning, prognosis, and treatment outcomes in MDD.
- Manage patients with MDD and anxious distress in primary care.

Let's review the diagnostic criteria for MDD

5+ symptoms for 2+ weeks

MDD Quick Review: DSM-5

*For full description, see the DSM-5

At least one of the following symptoms required (to be diagnosed):

- Depressed **mood**
- Diminished **interest/pleasure**

Additional symptoms:

- **Weight** loss/gain
- **Sleep**: Insomnia or hypersomnia
- **Psychomotor** agitation/retardation
- **Fatigue** or loss of energy
- Feelings of **worthlessness/guilt**
- Trouble thinking/**concentrating**/making decisions
- Recurrent thoughts of **death**/suicidal ideation

MDD = Major depressive disorder; DSM =Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (APA)

Symptom list adapted from American Psychiatric Association. Diagnostic and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013.

But our patients are telling us…

Focus group participants in Brown et al study reported that **anxiety** was the target symptom with the greatest level of impact on their lives (family, work, social, sleep, financial)

Anxiety was the symptom the participants stated they would most like a medication to treat

- Brown TM, DiBenedetti DB, Danchenko N, Weiller E, Fava M, Symptoms of Anxiety and Irritability in Patients with Major Depressive Disorder. Journal of Depression and Anxiety. 2016,5;3

What is the “with anxious distress” DSM Specifier?

MDD “with anxious distress”

- Is one of 9 potential specifiers for MDD
- Describes a distinct clinical **presentation** of *distressing anxious symptoms*
- Describes a distinct clinical **course** that coincides with a depressive episode

Anxious distress is a prominent feature of either:

- bipolar depression
- major depressive disorder

DSM =Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (APA)

American Psychiatric Association. Diagnostic and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013.

MDD “with anxious distress”

2+ symptoms on majority of days:

- Feeling keyed up or tense
- Feeling unusually restless
- Difficulty concentrating because of worry
- Fear that something awful may happen
- Feeling that the individual might lose control of himself or herself

Severity:

- **Mild:**
  2 symptoms
- **Moderate:**
  3 symptoms
- **Moderate-severe:**
  4 or 5 symptoms
- **Severe:**
  4 or 5 symptoms and with motor agitation

DSM =Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (APA)

American Psychiatric Association. Diagnostic and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013.

An Acronym for Anxious Distress

C: Concentration difficulty because of worry

R: Restless feeling

A: Awful things might happen

C: Control of self might be lost

K: Keyed up or tense feeling

Letters to the Editors Journal of Clinical Psychopharmacology Volume 45, Number 5, September/October 2025

Mark J. Berber, MRCPsych Department of Psychiatry, Queen's University, Ontario, Canada

How do patients describe their anxious distress symptoms?

"Worry" / "Anxiety" / "Pit in stomach"

"Insomnia/sleep difficulty"

"Panic"

"Shaking feeling inside"

"Racing thoughts"

"Restless" / "Tense" / "Jitters"

"Impending doom"

"Inability to feel calm"

"Might lose control"

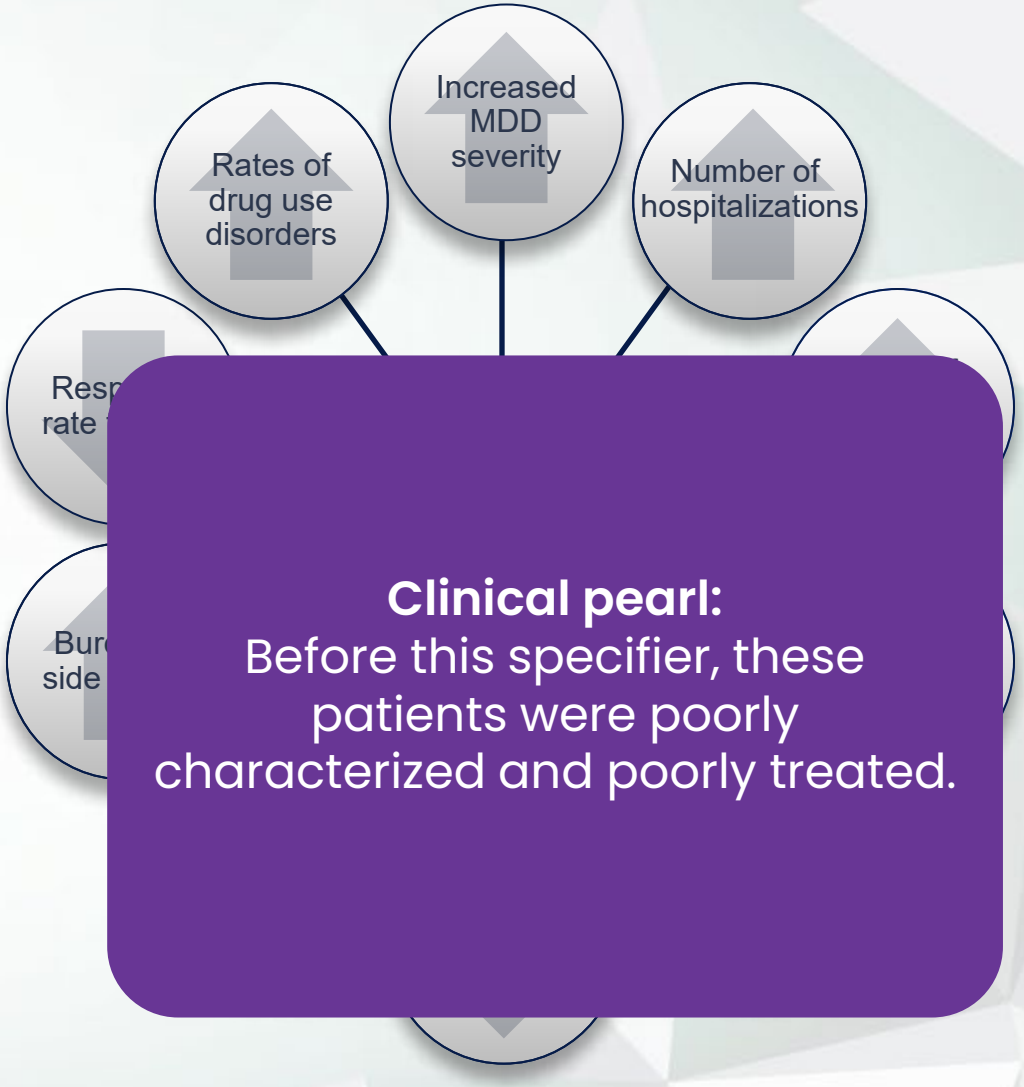
Are there patients in your practice who might fit the description of the specifier?

Clinical Relevance of Anxious Distress in MDD

56-78% of patients with MDD meet the criteria for anxious distress[1,2]

Anxious depression can worsen prognosis[6,7]

- It predicts greater morbidity and has been associated with[7,8]:
  - Increased suicidality
  - Greater functional impairment
  - Worse/reduced quality of life
  - Depressed episodes of longer duration
  - Poorer response to treatment



ADT, Antidepressant therapy; MDD, Major depressive disorder

1. McIntyre et al. Ther Adv Chronic Dis. 2016;7(3):153-159.
2. Zimmerman et al. Depression & Anxiety. 2019;36(1):31-38.
3. Fava et al. Am J Psychiatr. 2008;165(3):342-351.
4. Brown et al. J Depress Anxiety. 5:237. doi:10.4200/2167-1044.1000237
5. Inescu et al. Prim Care Companion CNS Disord. 2014;16(3):doi:10.4088/PCC.13r01621
6. Trivedi et al. Am J Psychiatry. 2006;163:28-40
7. Fava et al. Can J Psychiatry. 2006;51:823-835
8. Zimmerman et al. J Clin Psychiatry. 2014;75:601-607

Differential Diagnosis

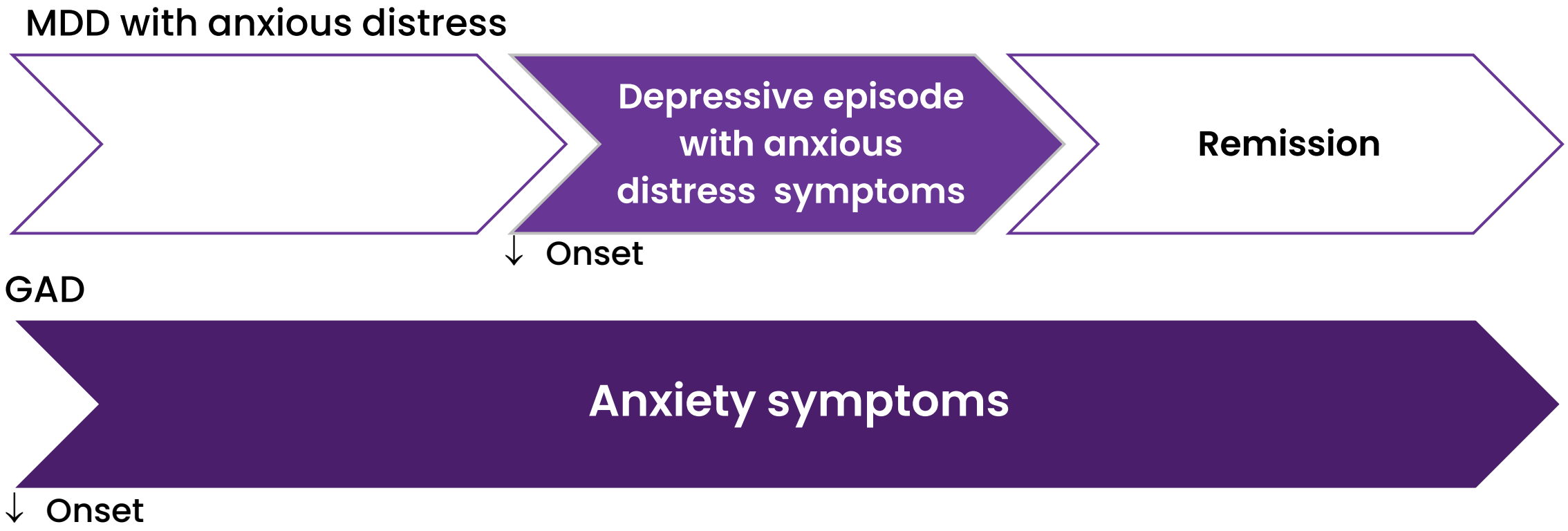
Anxious distress differs from concurrent GAD

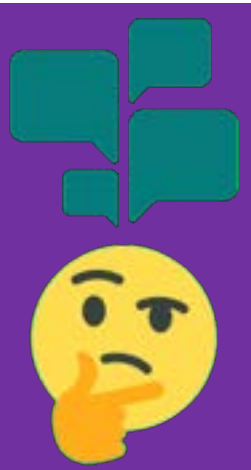
Anxious Distress Specifier Symptoms	Generalized Anxiety Disorder Symptoms (GAD)
2+ during depressive episode:	**3+ symptoms for 6+ months:**
• Feeling keyed up or tense	• Restlessness/ keyed up/on edge
• Feeling unusually restless	• Easily fatigued
• Difficulty concentrating because of worry	• Difficulty concentrating
• Fear that something awful may happen	• Irritability
• Feeling that the individual might lose control of himself or herself	• Muscle tension
	• Sleep disturbance

American Psychiatric Association. Diagnostic and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013.

Anxious Distress and GAD Have Different Timing and Clinical Course

Differential diagnosis:
- Anxious distress is concurrent with the depressive episode
- Anxiety follows a long clinical course of 6+ months





Why is Monitoring Anxious Distress Clinically Important in our practice?

Anxiety symptoms are distressing for our patients

Contribute to decreased response to antidepressant treatment

Increased risk of suicidality

Greater impairment of function

Decreased overall quality of life

Calgary Anxious Distress Inventory (CADI)

SUPPLEMENTARY SCALE TO PHQ-9

PHQ-9 Score: ☐

For the current episode, which came first?

- ☐ Anxiety
- ☐ Depression
- ☐ Both at same time

Rate severity:
1 = **Mild**
(noticeable, but of modest significance);

2 = **Moderate**
(significant, but not dramatic);

3 = **Severe**
(very marked or prominent, or dramatic).

RATE SYMPTOMS OVER LAST 2 WEEKS	YES	NO	SEVERITY
Specifiers for Anxious distress			
1. Feeling keyed up or tense	Yes	No	1 2 3
2. Feeling unusually restless	Yes	No	1 2 3
3. Having difficulty concentrating because of worry	Yes	No	1 2 3
4. Feeling that something awful might happen (sense of foreboding)	Yes	No	1 2 3
5. Feeling at risk of losing control of oneself	Yes	No	1 2 3
Total symptom count score for items 1-5 (1 point for each "Yes")			
Total severity score (add up numbers for items 1-5)			

American Psychiatric Association. Diagnostics and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013

An Example of CADI Results

SUPPLEMENTARY SCALE TO PHQ-9

PHQ-9 Score: **15**

For the current episode, which came first?

- ☐ Anxiety
- ■ Depression
- ☐ Both at same time

Rate severity:
1 = **Mild**
(noticeable, but of modest significance);

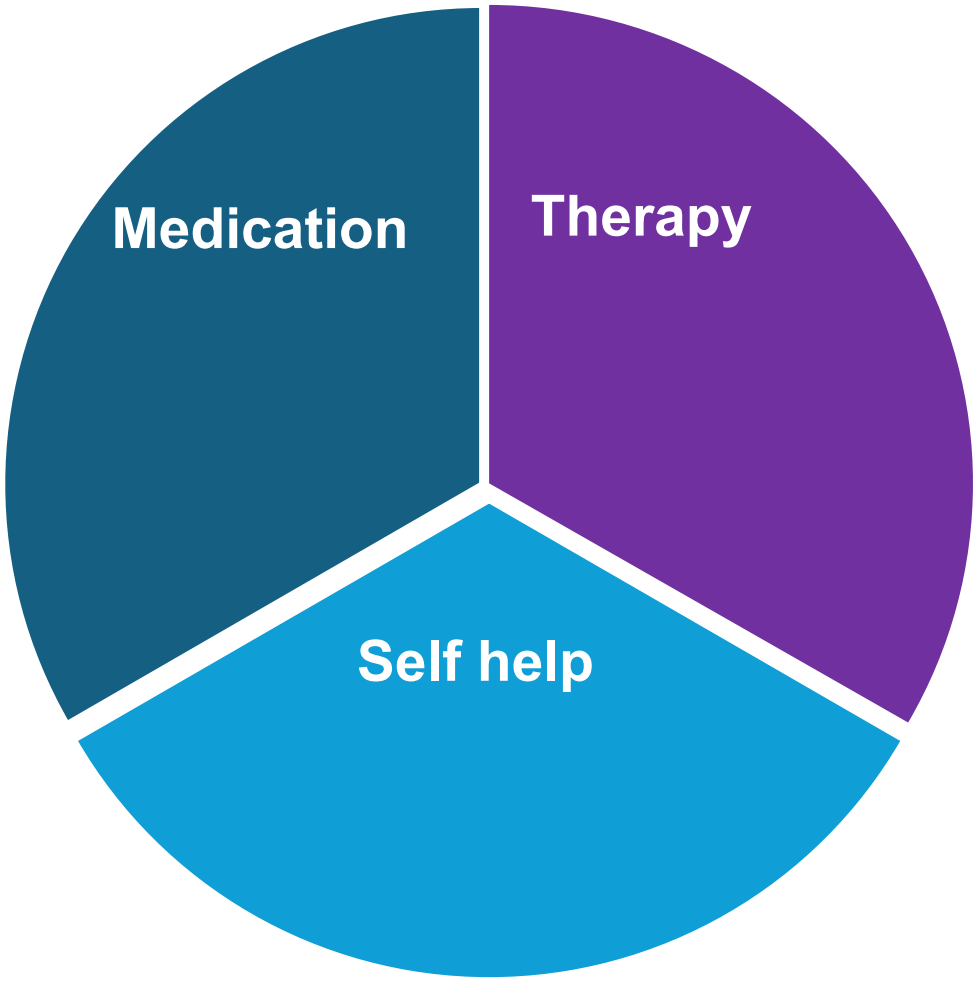
2 = **Moderate**
(significant, but not dramatic);

3 = **Severe**
(very marked or prominent, or dramatic).

RATE SYMPTOMS OVER LAST 2 WEEKS	YES	NO	SEVERITY		
Specifiers for Anxious distress					
1. Feeling keyed up or tense	Yes	No	1	2	3
2. Feeling unusually restless	Yes	No	1	2	3
3. Having difficulty concentrating because of worry	Yes	No	1	2	3
4. Feeling that something awful might happen (sense of foreboding)	Yes	No	1	2	3
5. Feeling at risk of losing control of oneself	Yes	No	1	2	3
Total symptom count score for items 1-5 (1 point for each "Yes")	**4/5**				
Total severity score (add up numbers for items 1-5)			**8/15**		

American Psychiatric Association. Diagnostics and Statistical Manual, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013

Practical points for treatment: Looking at the full picture



MDD & Anxious Distress

How Do You Treat?

As per CANMAT[1] and ADAC[2] guidelines as well as clinical experience

Pharmacological Interventions

- Antidepressants
- Others
  - Quetiapine XR
  - Benzodiazepines
  - Pregabalin
  - Divalproex
- Ketamine/Esketamine
- Herbal Remedies

Non-Pharmacological Interventions

- Mindfulness
- Neuro-Stimulation
- Peer Support
- Phone Apps
- Physical Exercise
- Psychotherapy
- Sleep Improvement
- Supplements
- Websites
- Books
- Diet Modification

ADAC, Anxiety Disorders Association of Canada; CANMAT, Canadian Network for Mood and Anxiety Treatments

1. Lam et al. Can J Psychiatry. 2024; 69(9):641-687; 2. Katzman and al. BMS Psychiatry. 2014;14(Suppl 1):S1

Pharmacologic Treatment

"The DSM-5-TR specifier, with anxious distress, has a prognostic value in that MDE with anxiety is associated with **poorer response** to standard treatments.

However, there is **no evidence** for better responses with any specific medication, hence **all first-line antidepressants** are recommended for anxious distress."

- CANMAT Guideline 2023

MDE = major depressive episode

Lam RW, et al. *Can J Psychiatry*. 2024;69(9):641-687.

First Line Antidepressants

CANMAT 2023

For MDD with anxious distress:

Use a first-line antidepressant

Agent	Dose	Class
Citalopram	20–40 mg	SSRI
Escitalopram	10–20 mg	SSRI
Fluoxetine	20–60 mg	SSRI
Fluvoxamine	100–300 mg	SSRI
Paroxetine	20–50 mg	SSRI
Sertraline	50–200 mg	SSRI
Desvenlafaxine	50–100 mg	SNRI
Duloxetine	60–120 mg	SNRI
Levomilnacipran	40–120 mg	SNRI
Venlafaxine-XR	75–225 mg	SNRI
Bupropion	150–450 mg	NDRI
Mirtazapine	30–60 mg	α2 antagonist; 5-HT2 antagonist
Vilazodone	20–40 mg	SRI; 5-HT1A agonist
Vortioxetine	10–20 mg	SRI; 5-HT1A, 5-HT1B agonist; 5-HT1D, 5-HT3A, 5-HT7 antagonist

5-HT=5-hydroxytryptamine receptor; α2=alpha-2 adrenergic receptor; NDRI=norepinephrine-dopamine reuptake inhibitor; SNRI=serotonin-norepinephrine reuptake inhibitor; SRI=serotonin reuptake inhibitor; SSRI=selective serotonin reuptake inhibitor;

Lam RW, et al. *Can J Psychiatry*. 2024;69(9):641-687.

If Poor Treatment Response

Patients with MDD with anxious distress are **less likely to respond** to antidepressant treatment than those without anxious distress

In clinical practice, the presence of the anxious distress criteria in patients with MDD influences the decision to prescribe an **adjunctive antipsychotic** treatment

Fava M, et al. *Am J Psychiatry*. 2008;165(3):342-351; McIntyre RS, et al. *Adv Ther*. 2015;32(5):429-444; McIntyre RS, et al. *Adv Ther*. 2015;32(5):429-444.

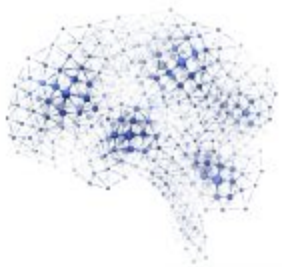
Urgency to Treat & Early Optimized Treatment for MDD

Time is Brain!

Oluboka OJ, Habert J, Khullar A, Robinson DJ, Katzman MA, Klassen LJ, Soares CN, Chokka PR, Oakander MA, McIntyre RS, McIntosh D, Blier P, Kennedy SH, Boucher M

y optimized treatment in
er:consequences of
ers to implementation,
for clinicians

Review
DOI: 10.1017/S1092852925000276
PMID: 40226992/



Adjunctive Treatments for MDD & Anxiety Symptoms

Level of Evidences vs. Line of usage

CANMAT recommendation for adjunctive treatment of MDD[a]	Pharmacological treatment	Published studies/analyses in patients with MDD & anxiety symptoms
1st Line Level 1 evidence[a]	Aripiprazole 2–15 mg	***Anxious depression*** • Post hoc pooled analysis from two 6-week RCTs (adjunctive; N=742) ***MD*** • [illegible] • [illegible]
	Brexpiprazole 0.5–2 mg	***MD*** • [illegible] • Post hoc pooled analysis of three 6-week RCTs (adjunctive; N=1,171)[b] • Post hoc pooled analysis of two 6-week RCTs (adjunctive; N=989) • Post hoc analysis of a 6-week RCT in Japan (adjunctive; N=736) ***Anxious depression*** • Post hoc analysis of three 6-week RCTs (adjunctive; N=1,171)[b] ***MDD with anxiety symptoms*** • Exploratory open-label 6-week study (adjunctive; N=37)

These medications (Aripiprazole, Brexpiprazole, Cariprazine) are now known as Serotonin-dopamine activity modulators due to their different mechanism of action compared to older antipsychotics

[a]Level 1 evidence: "High-quality meta-analysis with narrow confidence intervals and/or 2 or more RCTs with adequate sample size, preferably placebo-controlled"; Level 2 evidence: "Lower-quality meta-analysis with wide confidence intervals and/or 1 or more RCTs with adequate sample size"; [b]These post hoc analyses included the same RCTs in their analysis sample; [c]These analyses included the same 10 RCTs in their analysis sample.
ADT, antidepressant treatment; CANMAT, Canadian Network for Mood and Anxiety Treatments; IV, intravenous; MDD, major depressive disorder; RCT, randomized clinical trial; SNRI, serotonin-norepinephrine reuptake inhibitor

Reviewed in McIntyre et al. CNS Drugs. 2026; Under Review

Adjunctive Treatments for MDD & Anxiety Symptoms

Level of Evidences vs. Line of usage

CANMAT recommendation for adjunctive treatment of MDD[a]	Pharmacological treatment	Published studies/analyses in patients with MDD & anxiety symptoms
2nd Line **Level 1 evidence**	Bupropion	Anxious depression • Post hoc pooled analysis of 10 RCTs (monotherapy; N=2,122)[c] • Meta-analysis of 10 RCTs (monotherapy; N=2,122)[c]
	Ketamine/esketamine	MDD with anxious distress • Post hoc analysis of retrospective data following 4 infusions of IV ketamine (adjunctive; N=209) Anxious depression • Post hoc analysis of a 5-week RCT in adolescents (adjunctive; N=54) • Secondary analysis of a 2-week RCT (adjunctive; N=71) • Secondary analysis of a 4-week single-arm trial (adjunctive; N=50) • Secondary analysis of a 3-day RCT (adjunctive; N=99) • Post hoc analysis of a 4-week open-label study (adjunctive; N=26) MDD with anxiety symptoms • Post hoc analysis of a 4-week RCT (in combination with a newly initiated ADT; N=223) • Retrospective analysis (adjunctive; N=70)
	Olanzapine	Anxious depression • Non-interventional naturalistic study (monotherapy or in combination with venlafaxine; N=57)
	Quetiapine XR	Anxious depression • Post hoc pooled analysis of two 8-week RCTs (monotherapy; N=986) MDD with anxiety symptoms • Post hoc pooled analysis of two 6-week RCTs (adjunctive; N=919) • Post hoc analysis of a 9-week RCT (monotherapy; N=335) • Multicenter 12-week RCT (adjunctive; N=76) • Single-center 8-week pilot RCT (monotherapy or adjunctive; N=23) • Single-center 8-week pilot RCT (adjunctive; N=58; adjunctive)
	Risperidone	No studies identified
	Lithium	No studies identified

[a]Level 1 evidence: “High-quality meta-analysis with narrow confidence intervals and/or 2 or more RCTs with adequate sample size, preferably placebo-controlled”; Level 2 evidence: “Lower-quality meta-analysis with wide confidence intervals and/or 1 or more RCTs with adequate sample size”; [b]These post hoc analyses included the same RCTs in their analysis sample; [c]These analyses included the same 10 RCTs in their analysis sample.
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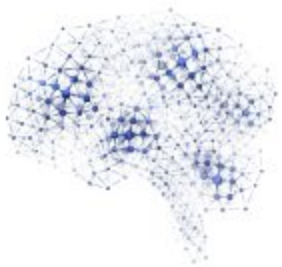
Reviewed in McIntyre et al. CNS Spectrums. 2026; Under Review



Adjunctive Treatments for MDD & Anxiety Symptoms

Level of Evidences vs. Line of usage

CANMAT recommendation for adjunctive treatment of MDD[a]	Pharmacological treatment	Published studies/analyses in patients with MDD & anxiety symptoms
2nd Line Level 2 evidence	Cariprazine	Anxious depression/MDD with anxiety symptoms • Post hoc analysis of a 6-week RCT (adjunctive; N=751)
	Mirtazapine/mianserin	Anxious depression – mirtazapine • Preliminary 12-week RCT in China (monotherapy or in combination with an SNRI in treatment-free patients; N=107) MDD with anxiety symptoms – mirtazapine • Post hoc analysis of a 12-week RCT (adjunctive; N=477) • Open-label 8-week trial (monotherapy; N=60)
	Modafinil	No studies identified
	Triiodothyronine	No studies identified

[a]Level 1 evidence: "High-quality meta-analysis with narrow confidence intervals and/or 2 or more RCTs with adequate sample size, preferably placebo-controlled"; Level 2 evidence: "Lower-quality meta-analysis with wide confidence intervals and/or 1 or more RCTs with adequate sample size"; [b]These post hoc analyses included the same RCTs in their analysis sample; [c]These analyses included the same 10 RCTs in their analysis sample.
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Reviewed in McIntyre et al. CNS Spectrums. 2026; Under Review

Safety Considerations for Antipsychotic Therapies

Safety concerns associated with antipsychotic class:

- Weight gain
- Hyperlipidemia
- Hyperglycemia
- Tardive dyskinesia
- Neuroleptic malignant syndrome

Should only be prescribed by clinicians who are aware/experienced in early detection and management of safety issues

Should be used for the shortest duration clinically indicated

Otsuka Pharmaceutical Co., Ltd. PRODUCT MONOGRAPH Aripiprazole. February 11, 2021.
Otsuka Pharmaceutical Co., Ltd. PRODUCT MONOGRAPH Brexpiprazole. January 23, 2024.

CANMAT 2023 Update on Guidelines for Major Depressive Disorder

Recommendations for Psychological Treatments

Recommendation	LoE	Psychological Treatment
1st Line	● ● ●	• Cognitive-behavioural therapy (CBT) • Interpersonal therapy (IPT) • Behavioural activation (BA)
2nd Line	◔ ◔ ◔ ◔ ◔	• Cognitive behavioural analysis system of psychotherapy (CBASP) • **Mindfulness-based cognitive therapy (MBCT)** • Problem-solving therapy (PST) • **Short-term psychodynamic psychotherapy (STPP)** • **Transdiagnostic psychological treatment of emotional disorders**
3rd Line	◐ ◐ ◐ ◐	• Acceptance & commitment therapy (ACT) • Long-term psychodynamic psychotherapy (PDT) • **Metacognitive therapy (MCT)** • Motivational interviewing (MI)

LoE, Level of Evidence ● Level 1 ◔ Level 2 ◐ Level 3 ◔ Level 4

Red indicates new since 2016.

Lam RW, Kennedy SH, et al. Can J Psychiatry 2024, .

CANMAT 1st and 2nd Line Recommendations for Complementary and Alternative Treatments for MDD

Physical and meditative treatments		Recommendation	Mono- or adjunctive therapy
Exercise	Mild to moderate MDD	1st Line	Monotherapy
	Moderate to severe MDD	2nd line	Adjunctive
Light therapy	Seasonal (winter) MDD	1st Line	Monotherapy
	Mild to moderate nonseasonal MDD	2nd line	Mono- and adjunctive
Yoga	Mild to moderate MDD	2nd line	Adjunctive
Natural health products		**Recommendation**	**Mono- or adjunctive therapy**
St. John's wort	Mild to moderate MDD	1st Line	Monotherapy
	Moderate to severe MDD	2nd line	Adjunctive
Omega-3	Mild to moderate MDD	2nd line	Mono- or adjunctive
	Moderate to severe MDD	2nd line	Adjunctive
SAM-e	Mild to moderate MDD	2nd line	Adjunctive
	Moderate to severe MDD	2nd line	Adjunctive

CANMAT, Canadian Network for Mood and Anxiety Treatments; MDD, major depressive disorder; SAM-e, S-adenosyl-L-methionine
Ravindran AV et al. *Can J Psych* 2016;;61:576-87

Exercise in the Treatment of MDD: Mechanisms and CANMAT Recommendations

A 2026 Cochrane review of 73 randomized trials found that exercise is effective in treating depression. A 2000 study also showed exercise is effective in relapse prevention.

- Potential mechanisms to explain benefit in MDD include:
  - **Biological factors**
    - Increased turnover of:
      - Neurotransmitters
      - Endorphins
      - Neurotrophic factors
    - Reduction in cortisol levels
  - **Psychological factors**
    - Increased self-efficacy

Cardiovascular (aerobic) and resistance (nonaerobic) exercise both effective in reducing depressive symptoms

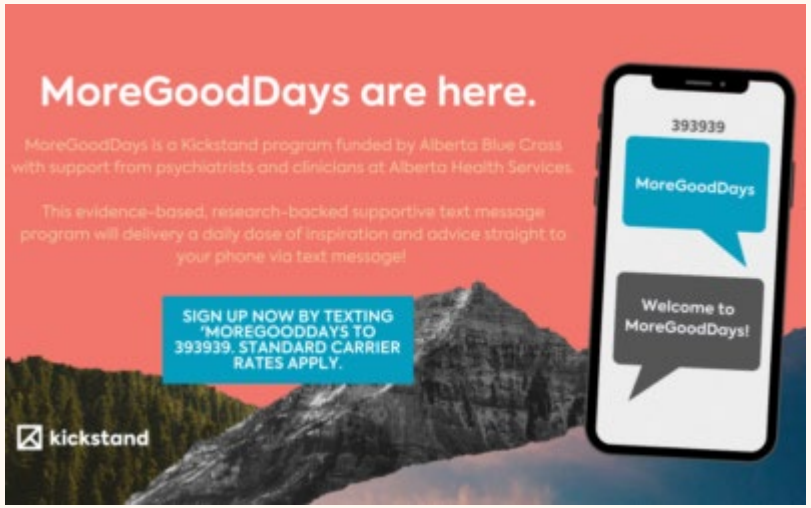
CANMAT, Canadian Network for Mood and Anxiety Treatments MDD, major depressive disorder
Ravindran AV et al. *Can J Psych* 2016;;61:576-87
Clegg AJ, et al. *Cochrane Database of Systematic Reviews*. 2026;2026(1).
Babyak M, et al. *Biopsychosocial Science and Medicine*. 2000;62(5):633.

- Loneliness “An Epidemic”
- Harvard Graduate School of Education’s 2024 Making Caring Common (MCC) project survey of 1500 adults
- Strong correlation between loneliness and mental health
- 81% of adults who were lonely also said they suffered **with anxiety or depression** compared to 29% of those who were less lonely. They also noted a complex interaction between troubled feelings, where loneliness, anxiety, and depression all feed into each other
- Age Demographics

30-44 years of age were the loneliest group — 29% of people in this age range said they were “frequently” or “always” lonely
18–29-year-olds — the rate was 24%
45–64-year-olds, the rate was 20%
Adults aged 65 and older reported the lowest rate: 10% felt lonely

Loneliness in America: Just the Tip of the Iceberg? Milena Batanova, Richard Weissbourd, and Joseph McIntyre October 2024

Text4Hope Program- coping strategies on your phone



Residents of Alberta can subscribe to a program targeted to their needs.

Each subscriber receives free three months of daily supportive text messages crafted by a team of clinical psychologists, psychiatrists, mental health therapists and mental health service users.

83.1 % felt Text4Mood improved overall mental well-being

“Supportive text messages are a feasible and acceptable way of delivering adjunctive psychological interventions to the general public with mental health problems.”

Agyapong, Mrklas et al Cross-sectional survey evaluating Text4Mood:Mobile health program to reduce psychological treatment gap in mental healthcare in Alberta through daily supportive text messages Nov 2016.BMC Psychiatry 16(1)

Image belleslink.com

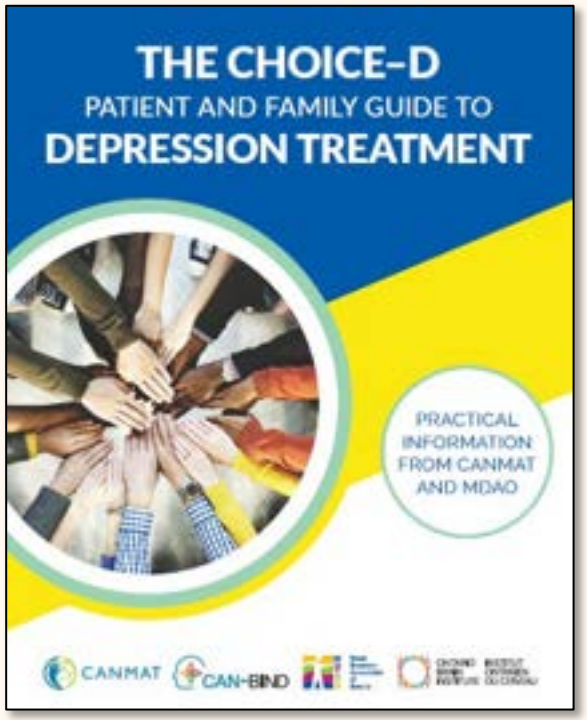
Self-Soothing strategies from: Dialectical Behavior Therapy, Cognitive Behaviour Therapy and Trauma Informed Psychology

- **Grounding:**
- Bringing your attention to the outside world and away from your inner world of negative feelings and thoughts. Examples:
- **Name** as many things/colours as you can see in the room,
- **54321 strategy -** 5 things you can SEE, 4 TOUCH, 3 HEAR, 2 SMELL, 1 TASTE

- **Butterfly hug** with alternate tapping and positive affirmations – an EMDR technique developed for survivors of natural disasters. First used with survivors of Hurricane Paulina, Mexico 1997
- Lots of videos on how to do this on YouTube (e.g. TYF support group video)

Artigas, L., Jarero, I., Mauer, M., López Cano, T., & Alcalá, N. (2000, September). EMDR and Traumatic Stress after Natural Disasters:
Integrative Treatment Protocol and the Butterfly Hug. Poster presented at the EMDRIA Conference, Toronto, Ontario, Canada.

CANMAT 2023 Update on Guidelines for Major Depressive Disorder



Collaborative Decision-Making

- Individualize specific goals of treatment with a collaborative, patient-centred approach.
- Incorporate a patient's unique goals and needs using principles of shared decision-making.
- Integrate psychoeducation and self-management into depression care.
- Use materials from credible sources, e.g., CHOICE-D is co-written with patient partners as a navigation guide for patients and families.

Lam RW, Kennedy SH, et al. Can J Psychiatry 2024, .

Patient Resources: Apps and websites

Resource	Description	Where to find
Patient education		
This is Depression Book by Dr. Diane McIntosh	Information and tools for understanding and combatting MDD Book format	https://www.drdianemcintosh.com/this-is-depression
Canadian Mental Health Association (English, French) **The CHOICE-D- Patient and Family Guide to Depression Treatment**	Online patient tools for self-management; vary by province A user-friendly guide to help understand depression and depression treatment	Locate provincial chapter at cmha.ca/find-your-cmha https://www.canmat.org/wpcontent/uploads/2019/07/Choice-D-Guide-Public.pdf
CBT		
MoodFx (English, French)	Online/mobile tracking of symptoms and functioning	www.moodfx.ca
MoodGYM (multiple languages) **Mindshift CBT app**	Online cognitive behavioural therapy (for a fee) Free app for CBT and anxiety mgmt	moodgym.anu.edu.au Free on app store
Mindfulness		
Palouse mindfulness	Free 8 week mindfulness program	Palousemindfulness.com
Mindful.org	Articles and guided meditations	www.mindful.org
Education	CCRN's slide resource library	https://www.ccrnmd.com/resources

To wrap up:

1. The **“with anxious distress”** specifier affects the majority of MDD patients and is associated with poorer treatment response.

2. Early **identification of patients** with anxious distress helps inform treatment.

3. Depending on the severity of illness and other patient factors, **psychotherapeutic and self help strategies** are useful at the initiation of treatment

4. When pharmacotherapy is indicated the antidepressant dose should be **optimized** and then **add adjunctive treatment** when needed.

Thanks!

When Focus is the Symptom: ADHD Diagnosis and Management in Children and Adults

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Personal Disclosures

Membership on advisory boards or speakers' bureaus:	None
Funded grants, research, or clinical trials:	None
Honoraria:	CCRN

Learning Objectives

- Describe typical ADHD presentations in children and adults.
- Select screening tools and initiate treatment in primary care.
- Prepare referrals for children with suspected ADHD.

Today's Roadmap

01

Recognizing ADHD

Presentations across the lifespan

02

Diagnosis & Screening

Tools, criteria, and comorbidities

03

Treatment in Primary Care

Age-specific first-line approaches

04

When to Refer

Indications for specialist involvement

01

Recognizing ADHD

Presentations Across the Lifespan

How ADHD Evolves Across Development

Preschool 3–5 yrs	Elementary 6–11 yrs	Adolescence 12–17 yrs	Adulthood
Hyperactivity dominates	Inattention becomes prominent Avg. diagnosis: 7 yrs	Hyperactivity fades; inattention & impulsivity persist	Restlessness replaces motor hyperactivity

Source: Posner et al., Lancet 2020; Volkow & Swanson, NEJM 2013

Core Symptom Domains

Inattention

- Difficulty sustaining attention
- Fails to follow through on tasks
- Avoids sustained mental effort
- Easily distracted by stimuli
- Forgetful in daily activities
- Loses necessary items

Hyperactivity

- Fidgets/squirms constantly
- Leaves seat inappropriately
- Runs/climbs excessively
- Unable to engage quietly
- 'On the go' — driven by a motor
- Talks excessively

Impulsivity

- Blurts out answers
- Difficulty waiting turn
- Interrupts or intrudes
- Acts before thinking
- Impatience in social settings
- Poor frustration tolerance

DSM-5 Criteria. Posner et al., Lancet 2020

ADHD in Adults: What Changes?

2.5–5.4%

Adult prevalence

50–65%

Children who persist into adulthood

~1:1

Male-to-female ratio in adults
(vs 4:1 in children)

Symptom Manifestation

- Extreme restlessness (not running/climbing)
- Inattention & impulsivity are primary impairments
- Difficulty keeping appointments, meeting deadlines
- Inability to focus on single tasks

Functional Consequences

- Frequent job changes / unemployment
- Marital discord & social maladjustment
- Higher rates of depression & anxiety
- Increased substance use disorders

Volkow & Swanson, NEJM 2013

02

Diagnosis & Screening

Tools, Criteria, and Comorbidities

DSM-5-TR Diagnostic Criteria

Children (< 17 years)

- ≥6 inattention OR ≥6 hyperactivity-impulsivity symptoms
- Symptoms present ≥6 months
- Onset before age 12
- Present in ≥2 settings
- Clear evidence of impaired functioning
- Not explained by another disorder

Key diff: ≥5 vs ≥6 symptoms

Adults (≥ 17 years)

- ≥5 inattention OR ≥5 hyperactivity-impulsivity symptoms
- Symptoms present ≥6 months
- Onset before age 12 (retrospective)
- Present in ≥2 settings
- Clear evidence of impaired functioning
- Not explained by another disorder

Source: DSM-5-TR (APA 2022) — diagnostic criteria unchanged from DSM-5; AAP Guideline 2019

Validated Screening Instruments

Broad Screens

ADHD + comorbidities

- Child Behavior Checklist (CBCL)
- Pediatric Symptom Checklist
- Strengths and Difficulties Questionnaire (SDQ)

ADHD-Specific

Children & adolescents

- Vanderbilt Assessment Scales (free; preschool validated)
- ADHD Rating Scale-5
- Conners 3rd Edition

Adult Scales

Adult presentations

- Adult ADHD Self-Report Scale (ASRS)
- Conners Adult ADHD Rating Scales (CAARS)

⚠ Neuropsychological testing does NOT improve diagnostic accuracy in most cases — use clinical judgment and multi-informant data.

Comorbidities: The Rule, Not the Exception

~60-80%

of children with ADHD have ≥1 comorbidity

- Oppositional Defiant Disorder
- Conduct Disorder
- Anxiety Disorders
- Depression / Mood Disorders
- Learning Disabilities
- Substance Use Disorders

Clinical Pearl: Screen for comorbid conditions at diagnosis AND annually. Do not assume ADHD alone explains all symptoms.

AAP Clinical Practice Guideline 2019; ADHD in Children: Common Q&A, AFP 2020

03

Treatment in Primary Care

Age-Specific First-Line Approaches

Age-Specific Treatment Approach

Age Group	First-Line Treatment	Second-Line / Notes
Preschool 4–5 yrs	Parent Training in Behavior Management (PTBM) + Behavioral classroom interventions	Methylphenidate if behavioral Rx insufficient after adequate trial & moderate-severe dysfunction
Children 6–11 yrs	FDA-approved stimulants (methylphenidate, amphetamines) + PTBM / behavioral interventions + educational support	Nonstimulants: atomoxetine, XR guanfacine, XR clonidine, viloxazine
Adolescents 12–17 yrs	FDA-approved medications + behavioral interventions if available	Monitor carefully for misuse and diversion risk
Adults	Methylphenidate or lisdexamfetamine (preferred) then atomoxetine	CBT if medication ineffective, not tolerated, or patient preference

AAP Clinical Practice Guideline 2019; Cortese, NEJM 2020

Medication Deep Dive: Stimulants vs Nonstimulants

Stimulants — First-Line

Agents:	Methylphenidate, Amphetamines
Effect Size:	0.72–1.02 (large)
>90% benefit:	When titrated appropriately
Side Effects:	Appetite suppression, insomnia, abdominal pain, headache
Titration:	Based on symptom response; NOT weight-based

Nonstimulants — Second-Line

Agents:	Atomoxetine, XR Guanfacine, XR Clonidine, Viloxazine
Effect Size:	0.33–0.64 (moderate)
Prefer when::	Comorbid tics or sleep problems
Also consider:	Substance use concerns, stimulant misuse/diversion risk
Titration:	Gradual dose escalation; delayed onset (weeks)

Cortese, NEJM 2020; FDA Orange Book

Monitoring Treatment Response

1

Standardized Rating Scales

Use validated scales (e.g., Vanderbilt, Conners) from multiple informants — parents, teachers, patients

2

Multi-Informant Assessment

Symptoms must be documented across ≥2 settings. Teacher reports are essential for school-age children

3

Regular Follow-Up Visits

Monitor at 1–3 month intervals during titration, then every 6 months once stable

4

Side Effect Surveillance

Track appetite, weight, sleep, BP, and HR at each visit. Document growth parameters annually

Note: No routine lab testing, genetic testing, or neuroimaging required unless specific concerns from history or examination.

04

When to Refer

Indications for Specialist Involvement

Indications for Specialist Referral

✓ Primary Care CAN Manage

- Typical ADHD presentation
- No severe comorbidities
- Good response to first-line treatment
- Stable family/school context
- Adequate primary care follow-up capacity

Refer To:

- Child Psychiatry
- Dev-Behav Peds
- Psychology / Neuro-psych

→ Refer to Specialist

- Diagnostic uncertainty / complex presentation
- Severe comorbidities (mood, ASD, LD)
- Treatment-refractory (failed first & second-line Rx)
- Preschool children requiring medication
- Safety concerns or significant family complexity

AAP Clinical Practice Guideline 2019

Preparing a Quality Referral

Chief Concern & Duration

Specific behaviors, settings affected, age of onset

Developmental History

Milestones, birth history, early behavioral concerns

Completed Rating Scales

Include teacher AND parent Vanderbilt/Conners scores

Educational History

Report cards, IEPs, teacher reports, school interventions tried

Medical & Psychiatric History

Prior diagnoses, current medications, family psychiatric history

Specific Referral Question

What do you need the specialist to answer or do?

Special Situations in ADHD Management

Girls with ADHD

Often inattentive-predominant; under-identified. Internal symptoms may mask impairment. Higher comorbid anxiety & depression.

Adolescent Medication Concerns

Address misuse, diversion, and growth concerns proactively. Use LAAMP formulations. Involve teen directly in shared decision-making.

ADHD + Learning Disability

ADHD treatment alone insufficient. Request educational testing. Advocate for IEP/504 accommodations. Coordinate with school team.

ADHD + Substance Use

Screen routinely in adolescents. Nonstimulants preferred if active SUD. Long-acting stimulants reduce diversion risk.

ADHD + Anxiety

Treat the more impairing condition first. Stimulants may worsen anxiety. Consider nonstimulants + CBT combination.

Transition to Adult Care

Plan transition at 16–17 yrs. Connect with adult psychiatry. Share summary, med history, and rating scale baseline.

Key Takeaways

1. ADHD evolves: hyperactivity fades; inattention and impulsivity persist into adulthood. Recognize this shift.
2. Diagnosis requires multi-informant data across ≥2 settings. Use free validated tools — Vanderbilt is your friend.
3. Primary care can diagnose and manage most ADHD. Screen for comorbidities at diagnosis and annually.
4. Treat by age: behavior first in preschoolers; stimulants + behavior in school-age children; medication first in adults.
5. Know when to refer: diagnostic complexity, severe comorbidities, treatment failure, or preschoolers needing medication.

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Thank you

Misdiagnosis Matters: Distinguishing ADHD, Bipolar Disorder and BPD

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Honoraria:	CCRN, Otsuka Pharma, Elvium Life Sciences, Collaborative & Research Network

Learning Objectives

- Differentiate key features of ADHD, bipolar disorder, and borderline personality disorder
- Apply assessment strategies for accurate diagnosis.
- Initiate appropriate management strategies in primary care.

Learning Objectives

1	Differentiate key features of ADHD, Bipolar Disorder & Borderline Personality Disorder

To differentiate key features
one must be knowledgeable about
the diagnostic criteria for each disorder

Attention-Deficit/Hyperactivity Disorder
Diagnostic Criteria (ABCDE)

A	A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development as characterized by 6 or more inattentive symptoms and/or 6 or more hyperactive & impulsive symptoms

DSM-5-TR American Psychiatric Association Feb 2022

Attention-Deficit/Hyperactivity Disorder
Additional Diagnostic Criteria

B	Several symptoms present prior to age 12 years
C	Several symptoms are present in 2 or more settings
D	Symptoms impact social, academic, or occupational functioning
E	Symptoms are not better explained by another mental disorder

DSM-5-TR American Psychiatric Association Feb 2022

Attention-Deficit/Hyperactivity Disorder

Inattentive Symptoms	1. Poor attention to details or careless mistakes 2. Difficulty sustaining attention 3. Does not listen when spoken to directly 4. No follow through or completion of tasks 5. Difficulty organizing tasks & activities 6. Avoiding tasks that requiring sustained effort 7. Loses things required for tasks or activities 8. Easily distracted (includes unrelated thoughts) 9. Forgetful in daily activities (chores, paying bills)
Hyperactive - Impulsive Symptoms	1. Fidgets or taps hands or feet 2. Leaves seat when expected to remain seated 3. Restless (children run about inappropriately) 4. Unable to engage in leisure activities quietly 5. “On the go” as if “driven by a motor” 6. Talks excessively 7. Blurts out answers, finishes people’s sentences 8. Difficulty waiting for his/her turn 9. Interrupts or intrudes on others

DSM-5-TR American Psychiatric Association Feb 2022

Differential Diagnosis of Adult ADHD

1. Specific learning disorder
2. Autism spectrum disorder
3. Anxiety disorders
4. PTSD
5. Depressive disorders
6. *Bipolar disorder*
7. Substance use disorders
8. *Personality disorders (e.g. borderline)*
9. Medication-induced symptoms of ADHD (bronchodilators, T4)
10. Neurocognitive disorders (dementia, traumatic brain injury)

Adapted from: DSM-V-TR American Psychiatric Association Feb 2022

The Adult ADHD Self-Report Scale (ASRS)

- Developed by WHO and an ADHD workgroup
- The 18 questions reflect the 18 DSM criteria
- First 6 questions can be used as a “screener”

Rating scales alone are never used to make a diagnosis but, when positive, prompt a detailed clinical interview

Kessler et al. Psychol Med 2005;35:245-256

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

Patient Name: **Today's Date:**

Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, click the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment.

PART A	Never	Rarely	Sometimes	Often	Very often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?	○	○	○	○	○
2. How often do you have difficulty getting things in order when you have to do a task that requires organization?	○	○	○	○	○
3. How often do you have problems remembering appointments or obligations?	○	○	○	○	○
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?	○	○	○	○	○
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?	○	○	○	○	○
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?	○	○	○	○	○
PART B					
7. How often do you make careless mistakes when you have to work on a boring or difficult project?	○	○	○	○	○
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?	○	○	○	○	○
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?	○	○	○	○	○
10. How often do you misplace or have difficulty finding things at home or at work?	○	○	○	○	○
11. How often are you distracted by activity or noise around you?	○	○	○	○	○
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?	○	○	○	○	○
13. How often do you feel restless or fidgety?	○	○	○	○	○
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?	○	○	○	○	○
15. How often do you find yourself talking too much when you are in social situations?	○	○	○	○	○
16. When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?	○	○	○	○	○
17. How often do you have difficulty waiting your turn in situations when turn taking is required?	○	○	○	○	○
18. How often do you interrupt others when they are busy?	○	○	○	○	○

Part A

≥4 marks in the shaded area is highly consistent with ADHD, identifying >⅔ of cases

Kessler et al. Psychol Med 2005;35:245-256

Bipolar I Disorder

A Manic Episode
with or without
Major Depressive Episode(s) or Hypomania

Bipolar II Disorder

A Hypomanic Episode
with *at least one*
Major Depressive Episode

Manic Episode

1	elevated, expansive or irritable mood & increased activity or energy for 7 days
2	+ 3 of 7 symptoms (+ 4 if mood irritable)
3	marked impairment of functioning
4	not due to effects of substance

DSM-5-TR American Psychiatric Association Feb 2022

Hypomanic Episode

1	elevated, expansive or irritable mood & increased activity or energy for 4 days
2	+ 3 of 7 symptoms (+ 4 if mood irritable)
3	Change in functioning (seen by others)
4	not due to effects of substance

DSM-5-TR American Psychiatric Association Feb 2022

The 7 Symptoms of Mania / Hypomania

IM **Impulsivity**

P **Pressured speech**

A **Activity increase** (goal and non-goal directed)

I **Insomnia** (decreased need for sleep)

R **Racing thoughts** (or flight of ideas)

E **Esteem elevation** (grandiosity)

D **Distractibility**

Berber MJ Can J Psychiatry 1998;43(4):422

Rapid Mood Screener for Bipolar I Disorder

	Yes	No
1. Have there been at least 6 different periods of time (at least 2 weeks) when you felt deeply depressed?	☐	☐
2. Did you have problems with depression before the age of 18?	☐	☐
3. Have you ever had to stop or change your antidepressant because it made you highly irritable or hyper?	☐	☐
4. Have you ever had a period of at least 1 week during which you were more talkative than normal with thoughts racing in your head?	☐	☐
5. Have you ever had a period of at least 1 week during which you felt any of the following: unusually happy; unusually outgoing; or unusually energetic?	☐	☐
6. Have you ever had a period of at least 1 week during which you needed much less sleep than usual?	☐	☐

A score of 4 or more suggests bipolar I disorder and warrants further assessment

McIntyre RS et al. Curr Med Res & Opinion.2021;VOL.37(1):135–144

Comorbidity of ADHD and Bipolar Disorder

Meta-analysis of 71 studies from 18 countries (n=646,766)

8% of adults with ADHD have bipolar disorder

17% of adults with bipolar disorder have ADHD

Comorbidity of ADHD did not differ between BP I & II

1st. degree relatives of ADHD patients have ↑ risk for BD
1st. degree relatives of BP patients have ↑ risk of ADHD

life-time comorbidity

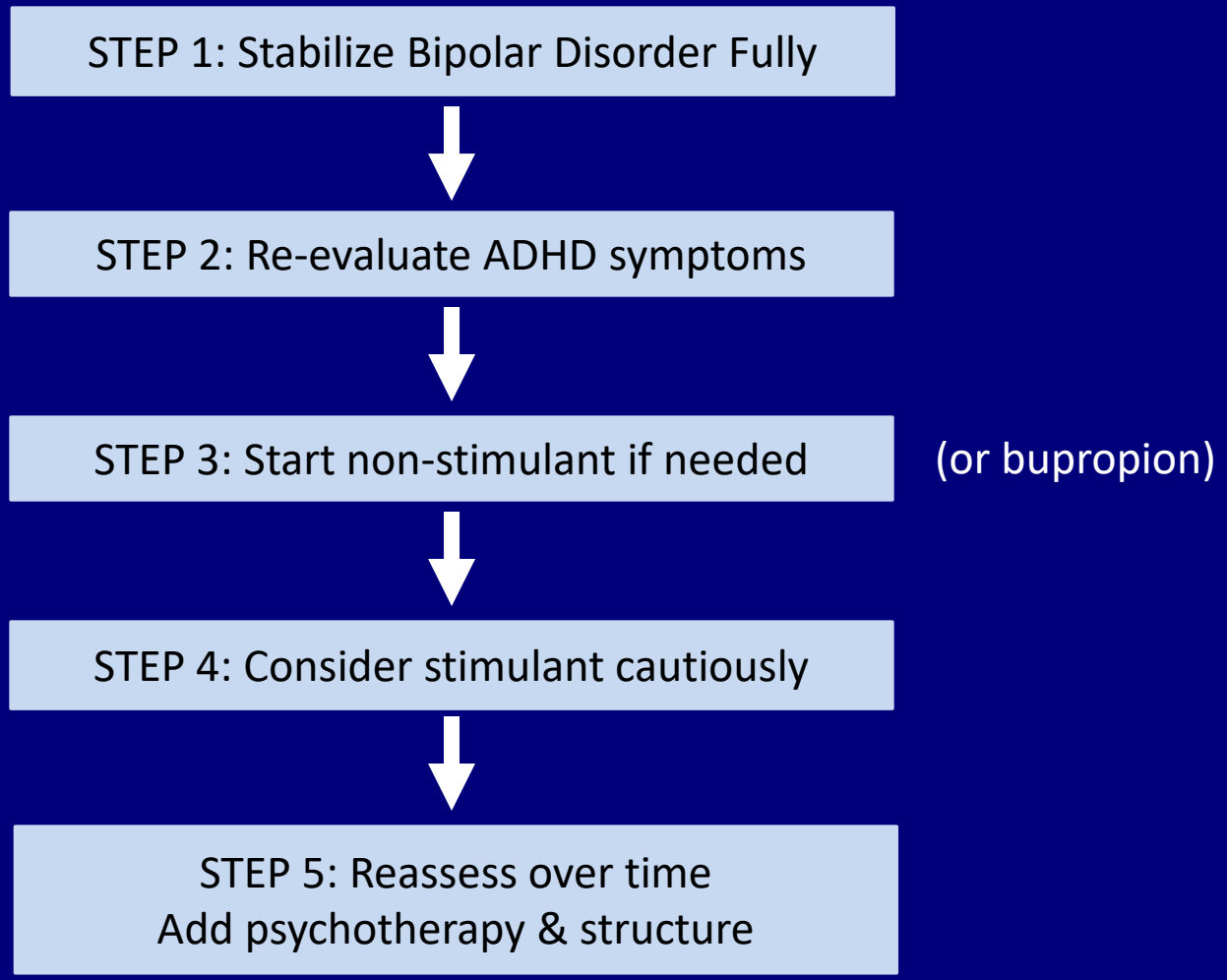
Schiweck C et al. Neuroscience and Biobehavioral Reviews 2021;124:100–123

Distinguishing ADHD from Bipolar Disorder

characteristic	ADHD	bipolar disorder
Age at onset	childhood	early adulthood
Course	stable	episodic
Thoughts	wandering	accelerated
Sleep	usually OK	↓need to sleep
Sexuality	not affected	increased
Psychosis	absent	possible

Salvi V et al. Medicina 2021;57:466

Treatment of ADHD with Comorbid Bipolar Disorder



MacDonald L & Sadek J. Brain Sci 2023,13,1517

Risk of Treatment-Emergent Mania with Methylphenidate in Bipolar Disorder

2,307 adults with bipolar disorder started therapy with methylphenidate

No treatment-emergent mania among bipolar patients receiving a mood stabilizer

Viktorin A. et al. Am J Psychiatry 2012;174:341-348

Borderline Personality Disorder

**A pervasive pattern of instability of interpersonal relationships,
self-image and affects, and marked impulsivity,
beginning by early adulthood
and present in a variety of contexts,
as indicated by 5 or more of 9 symptoms**

DSM-5-TR American Psychiatric Association Feb 2022

The 9 Symptoms of Borderline Personality Disorder

P Paranoid ideas/dissociation

R Relationship instability

A Anger Affect Abandonment

I Impulsivity Identity disturbance

S Self harm

E Emptiness

Berber MJ. Can Family Physician 1997;43:1920

McLean Screening Instrument for Borderline Personality Disorder

	Yes	No
1. I often feel that I have no clear sense of who I am or what I want out of life	☐	☐
2. My relationships tend to be very intense and unstable	☐	☐
3. I often feel unsure about my identity or self-image	☐	☐
4. I act impulsively in ways that could be self-damaging (e.g., spending, sex, substance use)	☐	☐
5. I have had repeated thoughts of suicide or have engaged in self-harming behaviors	☐	☐
6. My moods can change very quickly and feel intense	☐	☐
7. I often feel empty inside	☐	☐
8. I have difficulty controlling my anger	☐	☐
9. When stressed, I my feel paranoid or disconnected from reality	☐	☐
10. I make strong efforts to avoid being abandoned, whether real or imagined	☐	☐

Scoring (clinician use): Yes = 1 point No = 0 points

Total Score _____/10 A score of 7 or higher suggests BPD & warrants further clinical evaluation

Zanarini M,C. et al. J Pers Disorders 2023;17(6):568-573

Comorbidity of ADHD and Borderline Personality Disorder (BPD)

Prevalence of BPD is 1-4% in general population

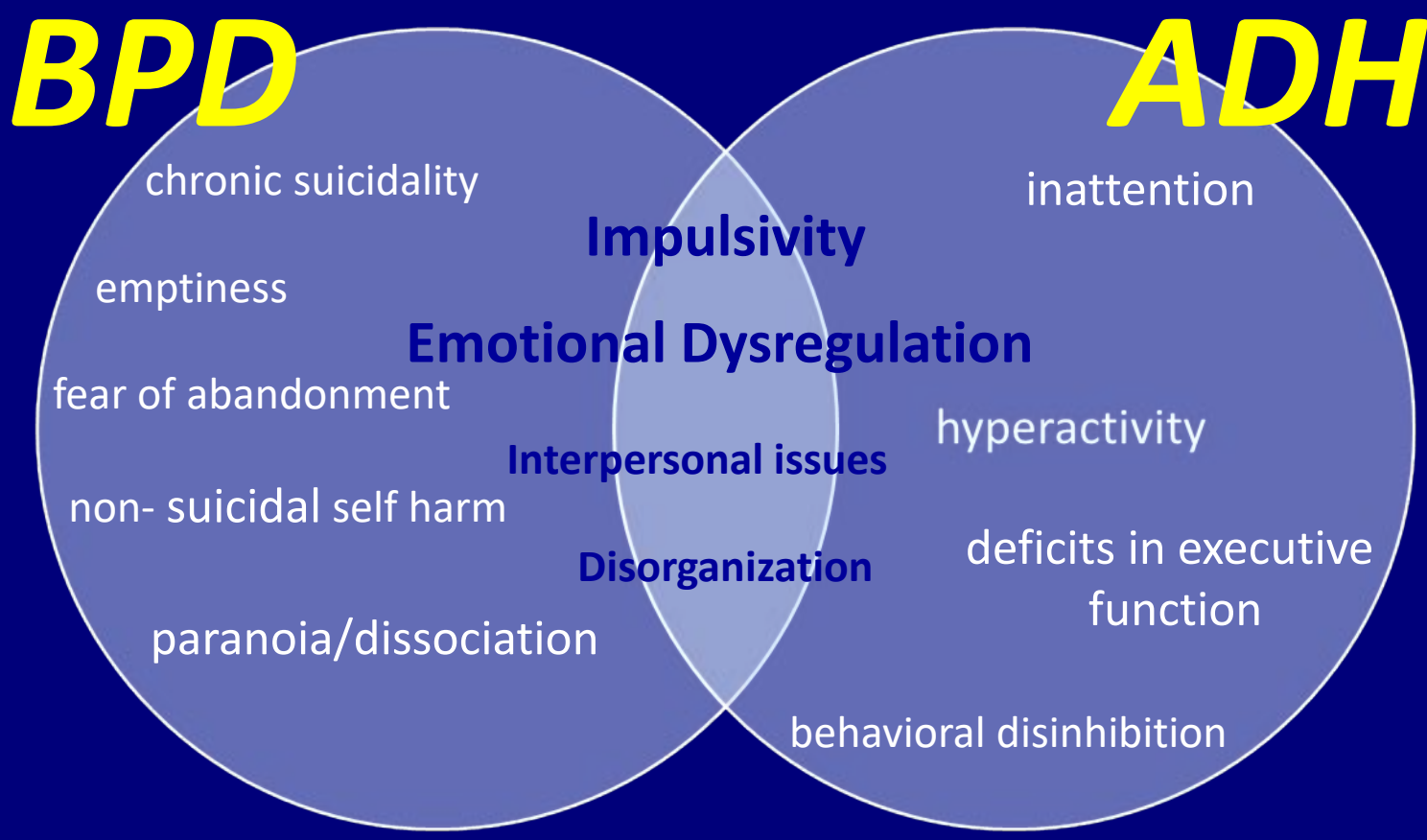
Prevalence of ADHD is 5-10% in childhood & 2-5% in adults

Up to 37% of adults with ADHD have BPD (& vice versa)

ADHD increases the odds of a BPD diagnosis 19 times

Kuja-Halkola, R. et al. Mol Psychiatry. 2018;23:2157–2163

Shared Features in ADHD & Borderline Personality Disorder



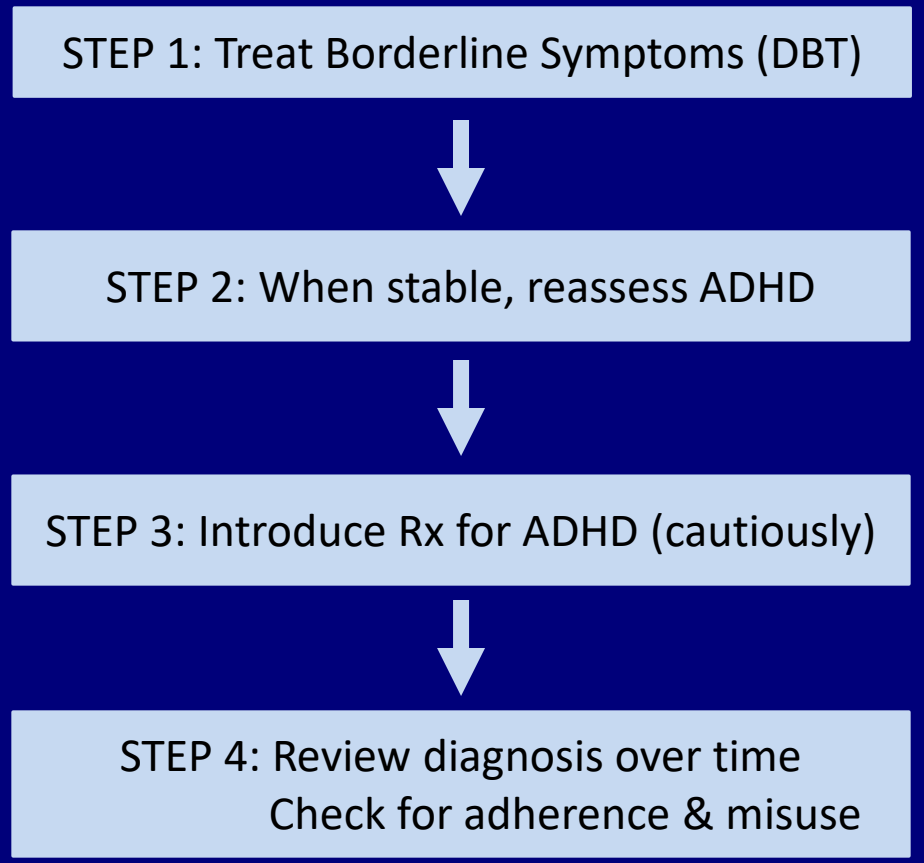
Matthies SD & Philipsen A. BPD & Emo Dysregul. 2014;1:3

IMPULSIVITY
ADHD *vs* Borderline Personality Disorder

ADHD	Borderline Personality
Interrupts others Talks over others Blurts out answers Impatience waiting	Impulsive self harm Takes sexual risks Spends excessively Binge eats Drives recklessly
Driven by cognitive activity (motor impulsivity)	Driven by intense emotion (stress dependent)
neurocognitive	behavioral
trait impulsivity	state impulsivity

MacDonald L & Sadek J. Brain Sci 2023,13,1517

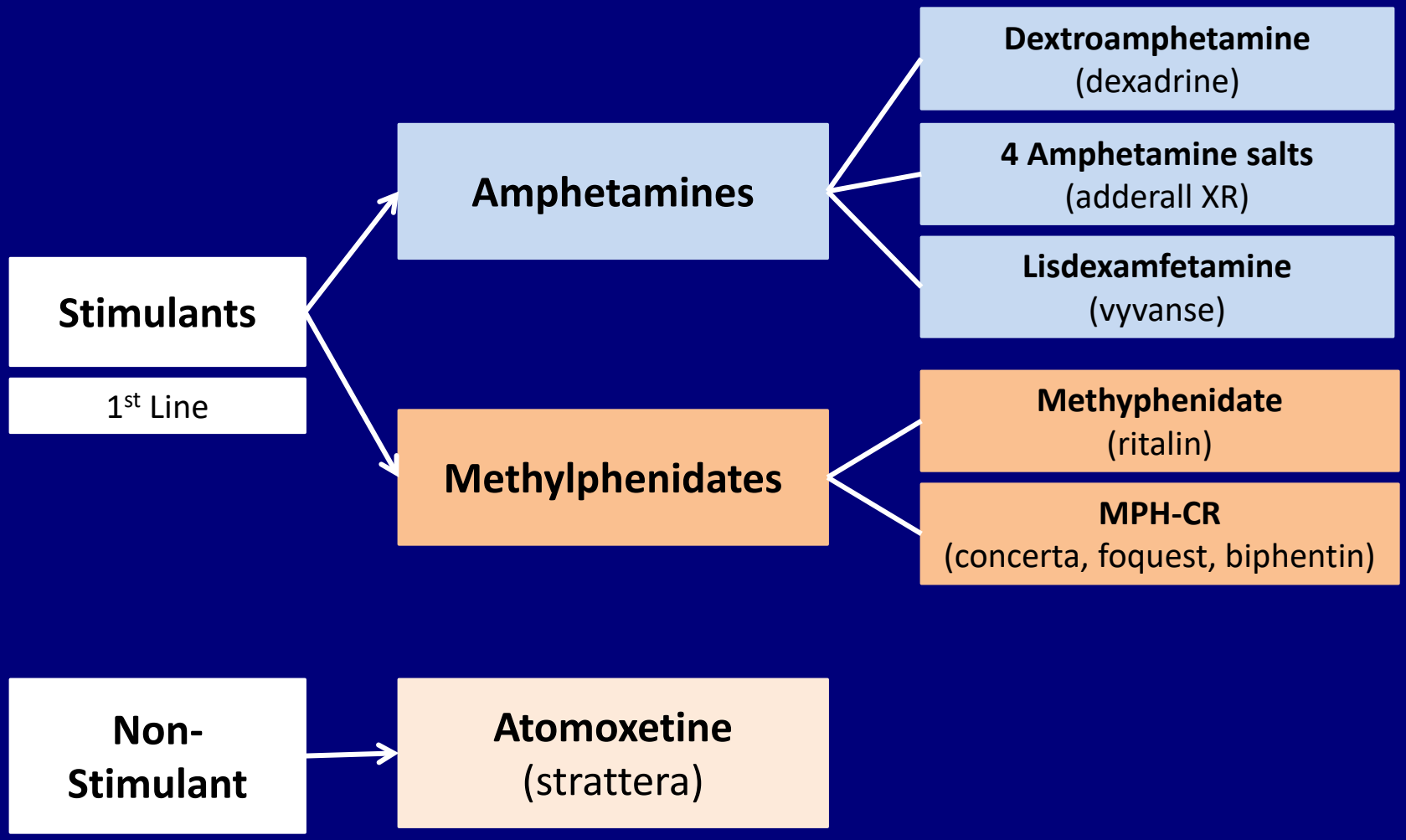
Treatment of ADHD with Comorbid Borderline Personality Disorder



Stabilize emotional dysregulation

1st line: atomoxetine

Pharmacotherapy of Adult ADHD



Monitoring Guidelines for Psychostimulants

Baseline (pre-treatment)

- **Vitals: Blood Pressure, Heart Rate, Weight**
- **Cardiovascular History**: Syncope, palpitations, chest pain, family history of sudden death
- **Psychiatric assessment:** *Screen for SUD's, mood & anxiety d/o, borderline PD, psychosis*
- **Baseline functioning:** ASRS, Job/School, Sleep, Appetite

Titration Phase (1-3 months) (every 2-4 weeks)

- **Vitals: Blood Pressure, Heart Rate, Weight**
- **Response:** Attention, Focus, Impulsivity, Functioning
- **Side-Effects**: Sleep, appetite, irritability, anxiety, emotional blunting
- **Adherence:** Misuse/Diversion concerns

Ongoing Monitoring stable phase (every 3-6 months)

- **Vitals: Blood Pressure, Heart Rate, Weight**
- **Clinical Review:** ADHD symptoms, Functioning, Sleep, Appetite, Mood
- **Risk review:** Misuse/Diversion, Emerging substance use

Annual Review

- Consider need for and trial off Rx, benefits vs risks, reconsider diagnosis

NICE UK 2019

Effectiveness of CBT for Adult ADHD

Meta-analysis of 28 RCT's (n=2,190)

Average 11.6 sessions over 11 weeks (group or individual)

60% of patients were receiving medications

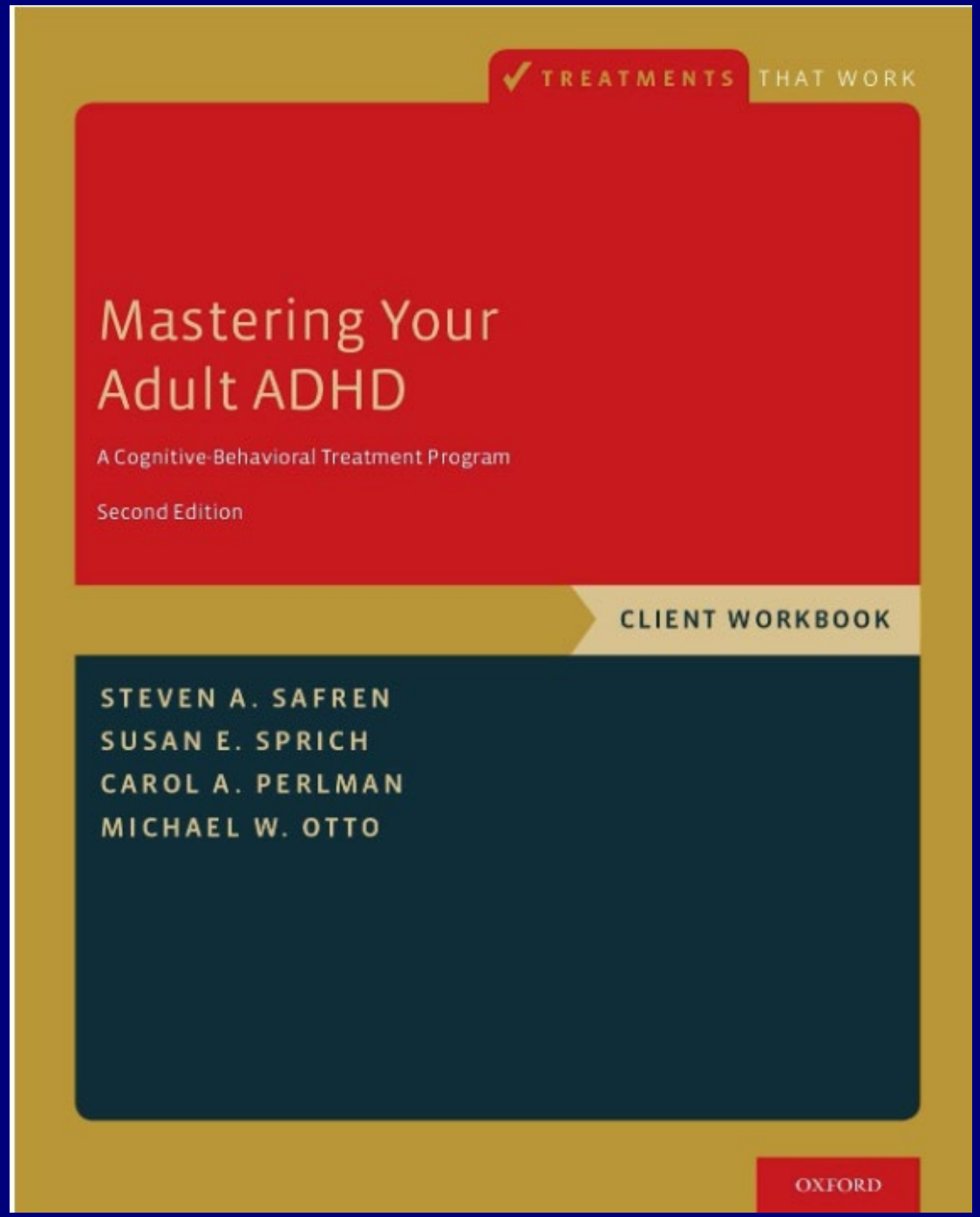
Controls had non-specific counselling or were on waitlists

↓ Core ADHD symptoms (inattention & hyperactivity/impulsivity)

↓ Emotional symptoms (depression & anxiety)

↑ Self-Esteem & Quality of Life

Liu C-I et al. Psychol Psychother Theory Res Pract. 2023;96:543-559


TREATMENTS THAT WORK
Mastering Your Adult ADHD
A Cognitive-Behavioral Treatment Program
Second Edition
CLIENT WORKBOOK
STEVEN A. SAFREN
SUSAN E. SPRICH
CAROL A. PERLMAN
MICHAEL W. OTTO
OXFORD

Session 2 Agenda

Session 2		
10:55 – 11:00 am	Session Introduction	Margie Oakander
11:00–11:40 am	Two Front Lines, One Crisis: Addiction Trends and Treatment	Det. Jeff Tavares Dr. Imran Ghauri
11:40– 12:00 pm	Q&A	

Front Lines, One Crisis: Addiction Trends and Treatment

Jeff Tavares

Staff Sergeant

Drug Squad, Gun and Gang Taskforce, Homicide Unit,
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Imran Ghauri

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Provincial Medical Director,
Inpatient Addiction Medicine - Recovery Alberta

Calgary, AB

Learning Objectives

- Describe common street drugs, usage patterns, and overdose risks.
- Use effective communication when discussing addiction with patients.
- Apply evidence-based therapies and community resources to support patients with addiction.

Front Lines, One Crisis: Addiction Trends and Treatment

Jeff Tavares

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Personal Disclosures

Membership on advisory boards or speakers' bureaus:	None
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Honoraria:	CCRN

MARIHUANA/WEED PENS

GUMMIES


KUSH
QUEEN
BLISS
GUMMIES
KUSH
QUEEN
CBD
GUMMIES
KUSH
QUEEN
SLEEP
GUMMIES
KUSH
QUEEN
FOCUS
GUMMIES

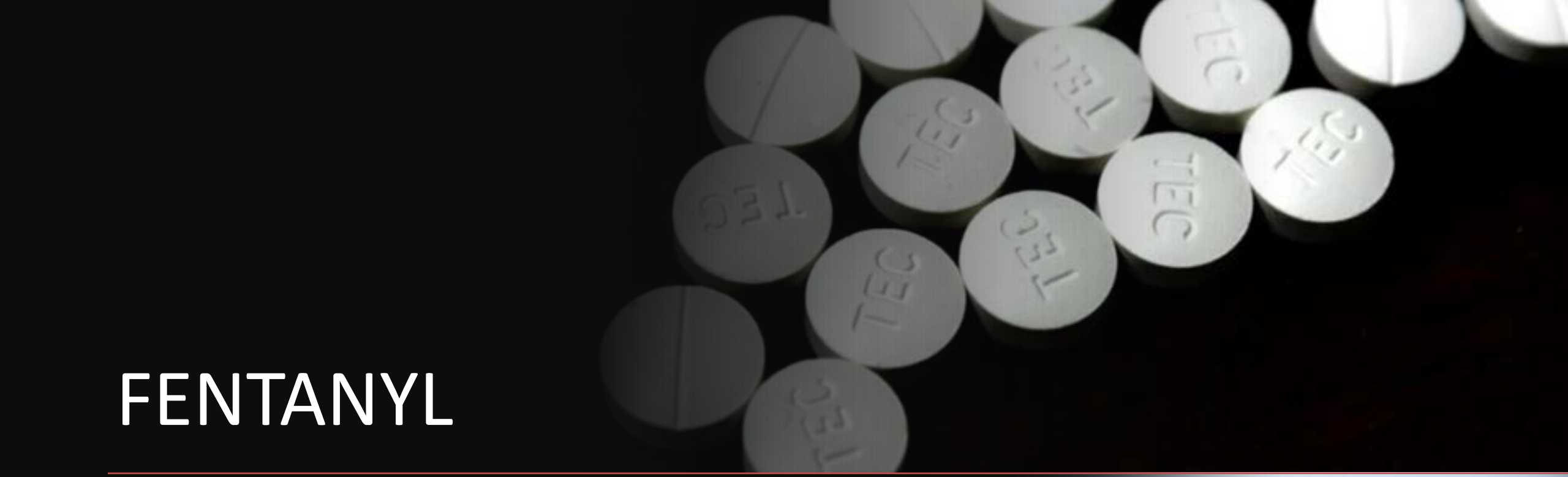
GUMMIES


THC
SHRED'EMS
SOUR BLUE RAZZBERRY
FRAMBOISE BLEUE SÛRE
4 INDICA GUMMIES / 4 JUJUBES INDICAS
THC/Total THC Total per unit/par unité: 2.5 mg
CBD/Total CBD Total per unit/par unité: 5 mg
KEEP OUT OF REACH OF CHILDREN | TENIR HORS DE LA PORTÉE DES ENFANTS
WARNING: Frequent and prolonged use of cannabis containing THC can contribute to mental health problems over time. Daily or near-daily use increases the risk of dependence and may bring on or worsen disorders related to anxiety and depression.
MISE EN GARDE : La consommation fréquente et prolongée de cannabis contenant du THC peut entraîner des problèmes de santé mentale au fil du temps. L'utilisation quotidienne ou presque quotidienne augmente le risque de dépendance et peut entraîner ou aggraver des troubles liés à l'anxiété et à la dépression.

GUMMIES


Flamin' Hot
Starburst
Gummies
Stoner Patch
Gummies
Jolly Rancher
Gummies
original
500 MG
Budheads
Chewy
Love Saverz
Gummies
5 Flavors
Cherry • Watermelon • Orange
Strawberry • Green Apple
Sour Patch
Crawlers
Mouth Meddling,
Terpy, Weird Wormy
Goodness.
Face Smacking
Sweetly Sour Mind Tripping
Tastiness.
500 MG

FENTANYL



FENTANYL

PURPLE FENTANYL

YELLOW FENTANYL

COCAINE LACED WITH FENTANYL

It's Not Just a Heroin Problem Any More

COCAINE

COCAINE

OPIODS - HEROIN

OPIODS

GENERIC	BRAND NAME
Hydrocodone	Vicodin, Lorcet, Lortab, Norco, Zohydro
Oxycodone	Percocet, OxyContin, Roxicodone, Percodan
Morphine	MSContin, Kadian, Embeda, Avinza
Codeine	Tylenol with Codeine, TyCo, Tylenol #3
Fentanyl	Duragesic
Hydromorphone	Dilaudid
Oxymorphone	Opana
Meperidine	Demerol
Methadone	Dolophine, Methadose
Buprenorphine	Suboxone, Subutex, Zubsolv, Bunavail, Butrans
Tramadol	Ultram

OPIOD OVERDOSE

OPIODS

FENT LEAN

Why Fentanyl Users May Bend Over:

Sedation ("Nodding Off")

Fentanyl causes extreme drowsiness, leading users to slump or nod forward while drifting in and out of consciousness.

Muscle Relaxation

It relaxes muscles so much that users may lose posture and bend over without realizing it.

Central Nervous System Depression

Fentanyl slows brain and body functions, making it hard to stay upright.

Overdose Warning

Slumping or being unresponsive can signal an overdose and should be taken seriously.


Why Teens Turn to Drugs (and What We Can Do About It)
UNDERSTANDING THE APPEAL OF DRUGS IN ADOLESCENCE
No single factor is responsible for teen substance abuse, instead it is normally due to a combination of influences. Here are some common factors:
Peer Pressure and Belonging
Curiosity and Risk-Taking
Coping with Stress and Emotions
Accessibility
Mental Health Challenges
According to the Centers for Disease Control and Prevention (CDC), millions of teens experiment with substances like alcohol, marijuana and prescription medications.
However, experimentation can quickly lead to harmful patterns of misuse, especially when mental health challenges are present.

SUBSTANCE USE CLINICAL SERVICES

Services for People Who Use Drugs

Toronto Public Health (TPH) provides programs and services to reduce drug-related harm for people who use drugs, including preventing the spread of communicable diseases.

In order to increase harm reduction access in Toronto, TPH provides safer drug use supplies, education and program sup to many community agencies across the city.

TPH closed its services at 277 Victoria Street on April 1, 2025. TPH will no longer offer supervised consumption services

Supervised Consumption Services remaining open in Toronto:

- Street Health (338 Dundas St. E.)
- Fred Victor (139 Jarvis St.)
- Casey House (119 Isabella Street), accepting new clients
- Moss Park OPS (134 Sherbourne Street)

As information can change, please contact the sites directly for updates.

Drug Checking Collection Sites:

- Parkdale Queen West Community Health Centre (1229 Queen St. W.)
- Moss Park of South Riverdale Community Health Centre (134 Sherbourne St.)
- Street Health (338 Dundas St. E.)

TPH Harm reduction services will be available through on-the-ground outreach teams.

Toronto Public Health Services Available After April 1, 2025:

- Street & Mobile Van Outreach – Providing harm reduction supplies (naloxone, needle exchange)
- Substance Use Treatment (OAT)
- Downtown Community Outreach Response & Engagement (CORE) Team Outreach in the Yonge-Dundas area

We're Here to Help: toronto.ca/SubstanceUse; 416-338-7600.

SUBSTANCE USE CLINICAL SERVICES

Based on recent data from 2025, the most used substances by high school students in the United States and Canada are **alcohol, nicotine (vaping), and marijuana**. While drug use has remained at historically low levels since 2021, these three substances continue to be the most prevalent, with use rising between 8th and 12th grade. Canada.ca +2

Most Commonly Used Substances (2025–2026)

- **Alcohol:** Consistently ranked as the most widely used substance by teens. By 12th grade, roughly 41% of students report using alcohol in the past year. Partnership to End Addiction - +1
- **Nicotine (Vaping):** Vaping, particularly with disposable flavored pens, is one of the most prevalent substance behaviors among teens, with 20% of 12th graders reporting past-year use in 2025. Partnership to End Addiction - +1
- **Marijuana/Cannabis:** Marijuana is the most commonly used *illicit* drug. In 2025, 26% of 12th graders reported using it in the past year, with many preferring to consume it via vaping or edibles. Partnership to End Addiction - +2
- **Prescription Stimulants/ADHD Medication:** Misuse of medication like Adderall or Ritalin is common, often for academic enhancement or "study drugs". The Recovery Village Drug and Alcohol ... +1
- **Over-the-Counter Drugs:** Dextromethorphan (DXM), often found in cough syrup, is used by some teens to get high, often in 10th or 11th grade. NCDAS: Substance Abuse and Addiction ...

Front Lines, One Crisis: Addiction Trends and Treatment

Imran Ghauri

MD, CCFPAM (c) ISAM (c) CSAM

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Inpatient Addiction Medicine - Recovery Alberta

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Personal Disclosures

Membership on advisory boards or speakers' bureaus:	None
Funded grants, research, or clinical trials:	None
Honoraria:	CCRN

Agenda

- Communication
- Evidence Based treatments
- OUD
- StUD
- AUD
- Community resources

Effective Communication in addiction care

Core approach: patient centered and non - judgmental

MOTIVATIONAL INTERVIEWING

TRAUMA INFORMED CARE

STIGMA FREE LANGUAGE

HARM REDUCTION

KEY POINT – CONNECTION BEFORE CORRECTION

PRACTICAL COMMUNICATION

START OPEN AND COLLABORATIVE

EXPLORE READINESS

OFFER TREATMENT OPTIONS

USE OF HARM REDUCTION FRAMING

IMPLEMENT BOUNDARIES USING EMPATHY

Opioid Use disorder - OUD

Treat with OAT – OPIOID AGONIST THERAPY

- Buprenorphine Sublingual/Buccal and Long-Acting Injectable
- Methadone
- SROM

Opioid Agonist Therapy (OAT)

- Gold standard of treatment for Opioid Use Disorder (OUD)
- Pharmacological treatment for people suffering with OUD
- Manages withdrawal symptoms and cravings
- More effective for treatment retention that non-pharmacological treatment alone
- Prevents opioid poisoning-related deaths
- Reduces morbidity and mortality rates in people with OUD
- Reduces risks of HIV & HEP C amongst people who inject opioids
- Increased efficacy when used in conjunction with counseling and psychosocial interventions

Short-Acting Buprenorphine: Suboxone

- CRISM guidelines recommends as first line of treatment for OUD
- Partial opioid receptor agonist
- Buprenorphine and Naloxone
- Available in buccal films, sublingual films, and most commonly, sublingual tablets
- Should not be swallowed
- Can be dosed BID, TID, QID depending on patient's needs
- Can cause highs and lows due to short-acting nature
- Can be difficult to taper at lower doses
- Can be initiated via micro- or macro-dosing regimens
- Typically takes 3-4 days to reach stable dose; dosage varies by patient's OUD severity

Long-Acting Buprenorphine: Sublocade

Stabilization on Suboxone prior to administration…or not

Depot-injection subcutaneously lasting 26-42 days; however, there is evidence from patient urine toxicology tests that buprenorphine remains in the system for a year

Continuous levels of medication mitigates highs and lows of oral dosing

Provides opiate-receptor protection against overdoses

Allows for ease of OAT tapering

Sublocade Continued…

- Available in two dosing strengths: 300mg and 100mg
- Typical administration: x2 300mg injections, then step down to 100mg
- Some patients require additional 300mg dose for prolonged stabilization
- Stabilization = therapeutic levels of Buprenorphine in body
- Can be effectively used in combination of Suboxone
- Offers ease of tapering:
  - Methods
  - Effectiveness
- Due to its lifespan, once injections are discontinued, patients remain with VODP for continued monitoring until no Buprenorphine is left in their system, then they graduate from VODP

Methadone

- CRISM guidelines recommends as a second line treatment when Buprenorphine is not appropriate or contraindicated
- Full opioid receptor agonist
- Dispensed in Tang to mitigate diversion
- Requires triplicate prescription
- Initiated at 30mg maximum as daily witnessed ingestion
- Titrated at maximum of 10mg every 3 days
- Increased risk of overdose or fatality when used in conjunction with opioids, alcohol and benzodiazepines
- Patients can not have more than 14 carry doses

Stimulant Use Disorder

- Contingency Management
- CBT – Cognitive Behavioural Therapy
- CRA - Community Reinforcement Approach
- Motivational Interviewing
- Bupropion + Naltrexone
- Others

Alcohol use Disorder

Brief interventions and motivational interviewing

CBT

Support groups

Contingency Management

Pharmacological Treatment

Withdrawal Management

Harm Reduction and Supportive Care

Community Resources

- Community Resources –
- Psychotherapy and Counselling services – in person or virtual
- Community Groups – 12 step programs , AA etc
- Specialist Advice and Outreach teams
- Organized Addiction programs with a MDT approach are the Gold Standard

References

- American Society of Addiction Medicine. Management of Stimulant Use Disorder Guideline. 2023.
- Madhukar H Trivedi, et al. Bupropion and Naltrexone in Methamphetamine Use Disorder. New England Journal of Medicine. 2021;384:140–153.
- Substance Abuse and Mental Health Services Administration. Treatment of Stimulant Use Disorders. Treatment Improvement Protocol (TIP 33 update).
- De Crescenzo F, et al. Comparative efficacy of psychosocial interventions for cocaine and amphetamine addiction. JAMA Psychiatry. 2018.
- Canadian Research Initiative in Substance Misuse (CRISM). National Guideline for Stimulant Use Disorder.

Session 3 Agenda

Session 3		
1:00 – 1:05 pm	Session Introduction	Jane Flynn
1:05 – 1:25 pm	What happens to mood when sleep improves?	Pratap Chokka
1:25 – 1:45 pm	Spotting Alzheimer's Early: From Recognition to Current and Emerging Therapies	Richard Norman
1:45 – 2:00 pm	Q&A	

What happens to mood when sleep improves?

Pratap Chokka

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CEO, Chokka Center for Integrative Health

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Personal Disclosures

Membership on advisory boards or speakers' bureaus:	Abbvie, Eisai, Janssen, Lundbeck, Otsuka Purdue, Sunovion, Takeda, Idorsia
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Honoraria:	CCRN, AbbVie, Lundbeck, Eisai, Idorsia, Otsuka, Elvium, Janssen, Purdue, Sunovion, Takeda

Learning Objectives

- Recognize the bi-directional relationship between sleep disturbances and mood disorders
- Review new clinical evidence on how improving sleep quality can positively impact depressive symptoms
- Apply practical patient management strategies for integrating sleep assessments including switching hypnotics

Chronic Insomnia in Canada: A Nationwide Burden

- Insomnia disorder is a highly prevalent condition, affecting 1 in 7 Canadians.[1]
  - Between 2007 and 2015, there was a 42% increase among Canadian adults.

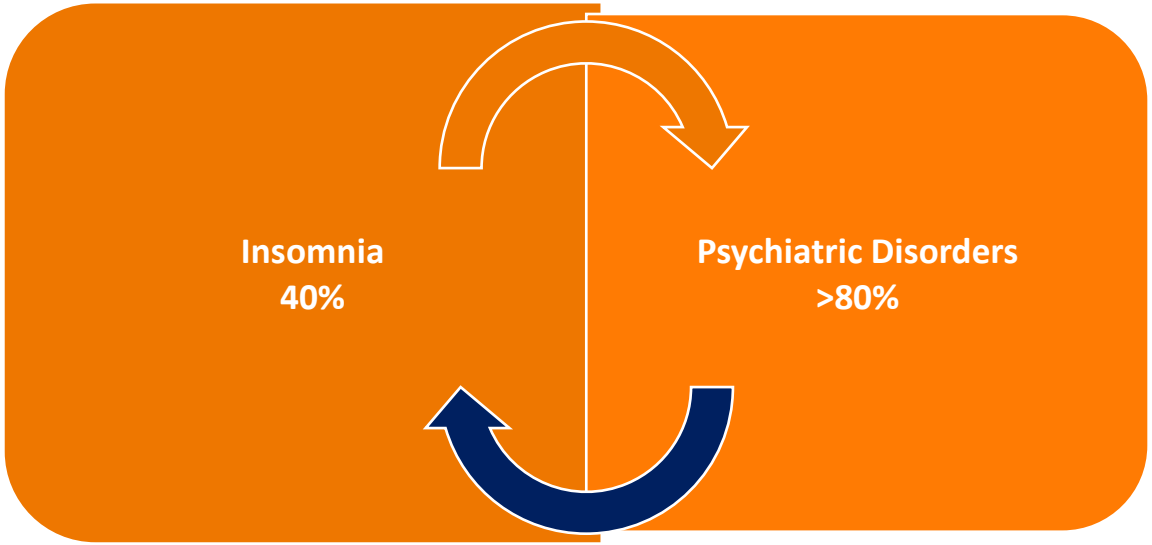
- Associated with significant and wide-ranging morbidities in mental, physical, and occupational health.[1]

- Patients with insomnia likely require long-term management.[1]
  - In a large five-year study of Canadian adults, insomnia was persistent in 42% of those with insomnia at baseline.[1]

Clinical Definition: Difficulty initiating/maintaining sleep or early awakening ≥3 nights/week for ≥3 months, with daytime impairment despite adequate opportunity for sleep.[2]

1. Morin CM et al. 2024 Sleep Med. 124:598–605;
2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5).

Insomnia and Comorbid Psychiatric Disorders Is Complex and Bidirectional



Khurshid KA. *Innov Clin Neurosci*. 2018;15(3-4):28-32

Bidirectional relationship between sleep and mental health

Insomnia confers increased risks to mental health:

- Anxiety
- Depression
- Bipolar disorder
- Chronic pain
- Schizophrenia
- Substance use disorder
- Attention deficit-hyperactivity disorder
- Suicide ideation, attempts, and completions

ACTH, adrenocorticotropic hormone; BDNF, brain-derived neurotrophic factor; IL, interleukin; OR, odds ratio; ROS, reactive oxygen species

Guerrera CS, et al. Neurosci Biobehav Rev. 2024;158:105575.

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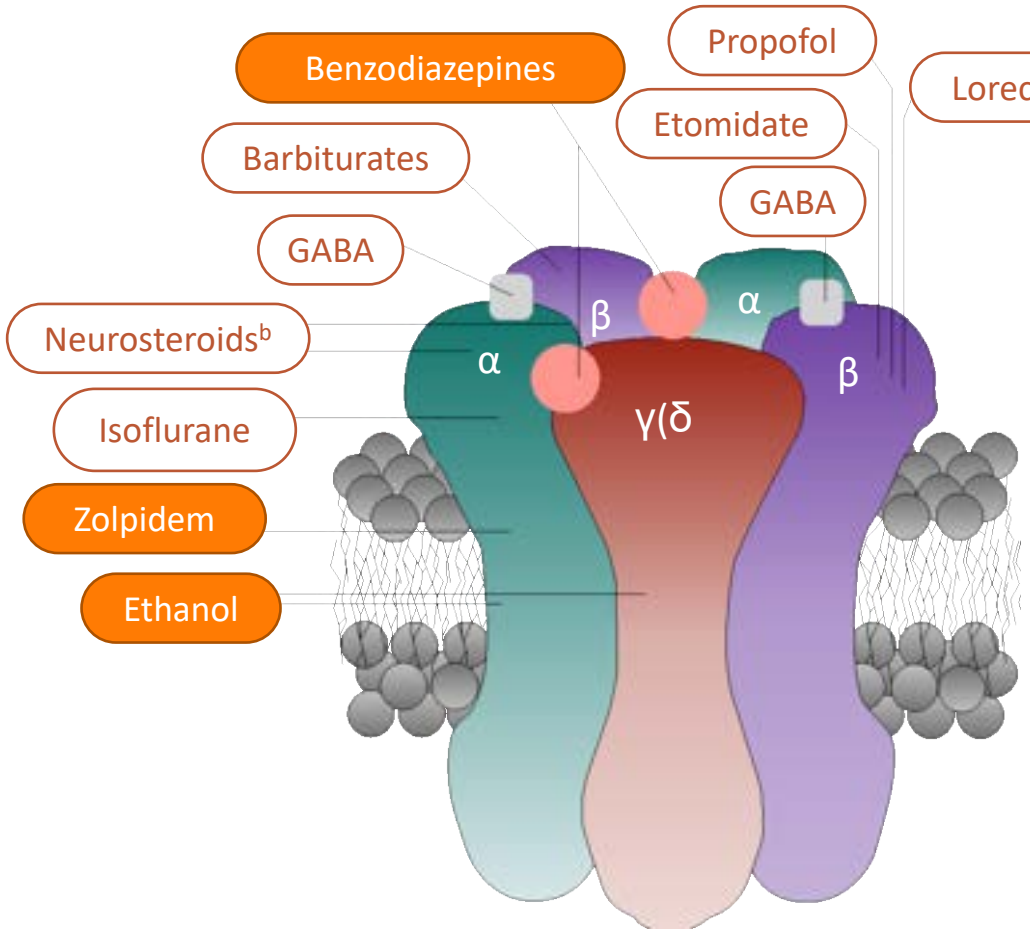
INSOMNIA: Sleep via $GABA_A$ receptor ligands



Anesthesia:
Propofol, etomidate, isoflurane, sevoflurane, desfurane, barbiturates

Antidepressents and anxiolytics:
Barbiturates, benzodiazepines, neurosteroids

Anti-seizure:
Barbiturates, benzodiazepines, loreclezole, ganaxolone, topiramate

Alcohol withdrawal:
Benzodiazepines, clonidine

Insomnia:
Benzodiazepines, zolpidem, eszopiclone

Trends in Neurosciences

Han W, et al. Trends Neurosci. 2021; 44(2): 152–165.

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GABA-A RECEPTOR MODULATORS (GABA-A RM)

- Due to **non-selective subunit binding**, GABA-A RM's activity may not terminate prior to the wake period, resulting in **next-day effects**:

  Reduced sleep quality
  Cognitive residual effects
  Morning sedation
  Reduced daytime functioning
  Balance impairment

- With aging, next-day effects may increase.
- Long-term use of GABA-A RMs (e.g benzodiazepines, z-drugs) may lead to downstream effects such as **dependence, tolerance, and withdrawal effects**.

Gotter et al. (2013) The duration of sleep promoting efficacy by dual orexin receptor antagonists is dependent upon receptor occupancy threshold. BMC Neurosci. 2013 Aug 28;14:90. doi: 10.1186/1471-2202-14-90
Matheson, E. (2017, July 1). Insomnia: Pharmacologic Therapy. Pubmed. https://pubmed.ncbi.nlm.nih.gov/28671376/
Gottesmann, Claude. "COMMENTARY GABA MECHANISMS AND SLEEP." (2002).

DORAs are the first class of medications to focus on the wake-promoting systems of sleep

Facilitate sleep by reducing arousal NOT inducing sedation

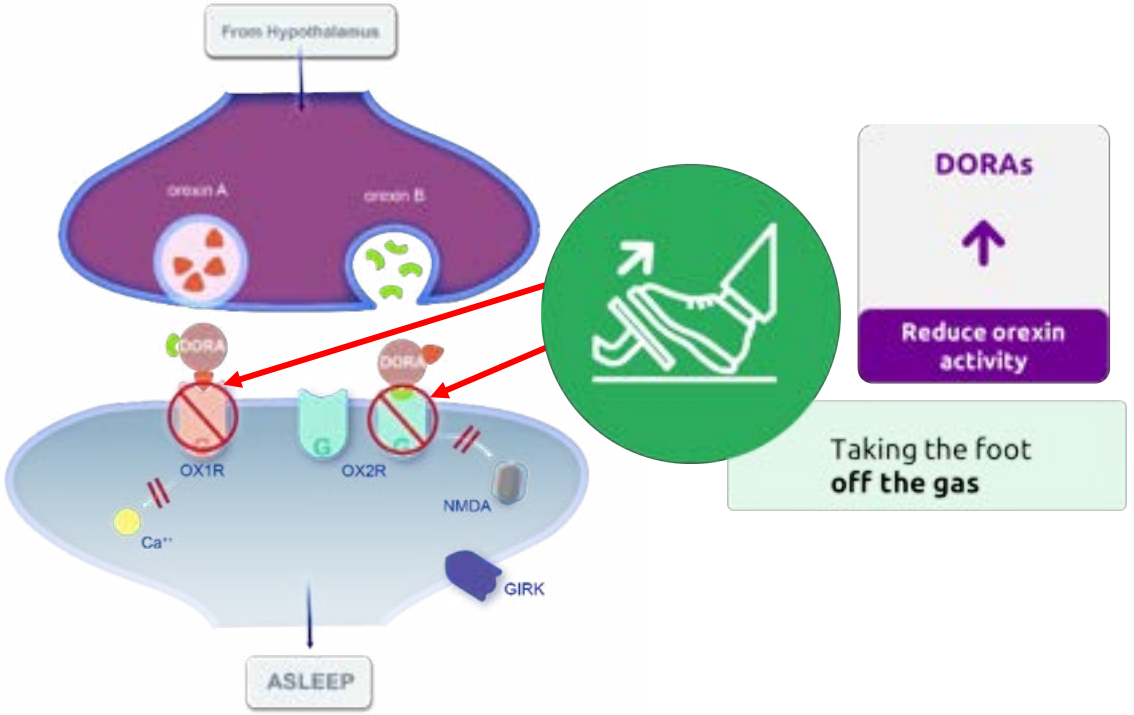
The orexin system **promotes wakefulness** as opposed to GABA sedatives (BZD and Z-drugs)

DORAs antagonize OX1R and OX2R

- Prevent activation by orexin neuropeptides
- Decrease the wake drive, allowing sleep to occur

DORAs in Canada

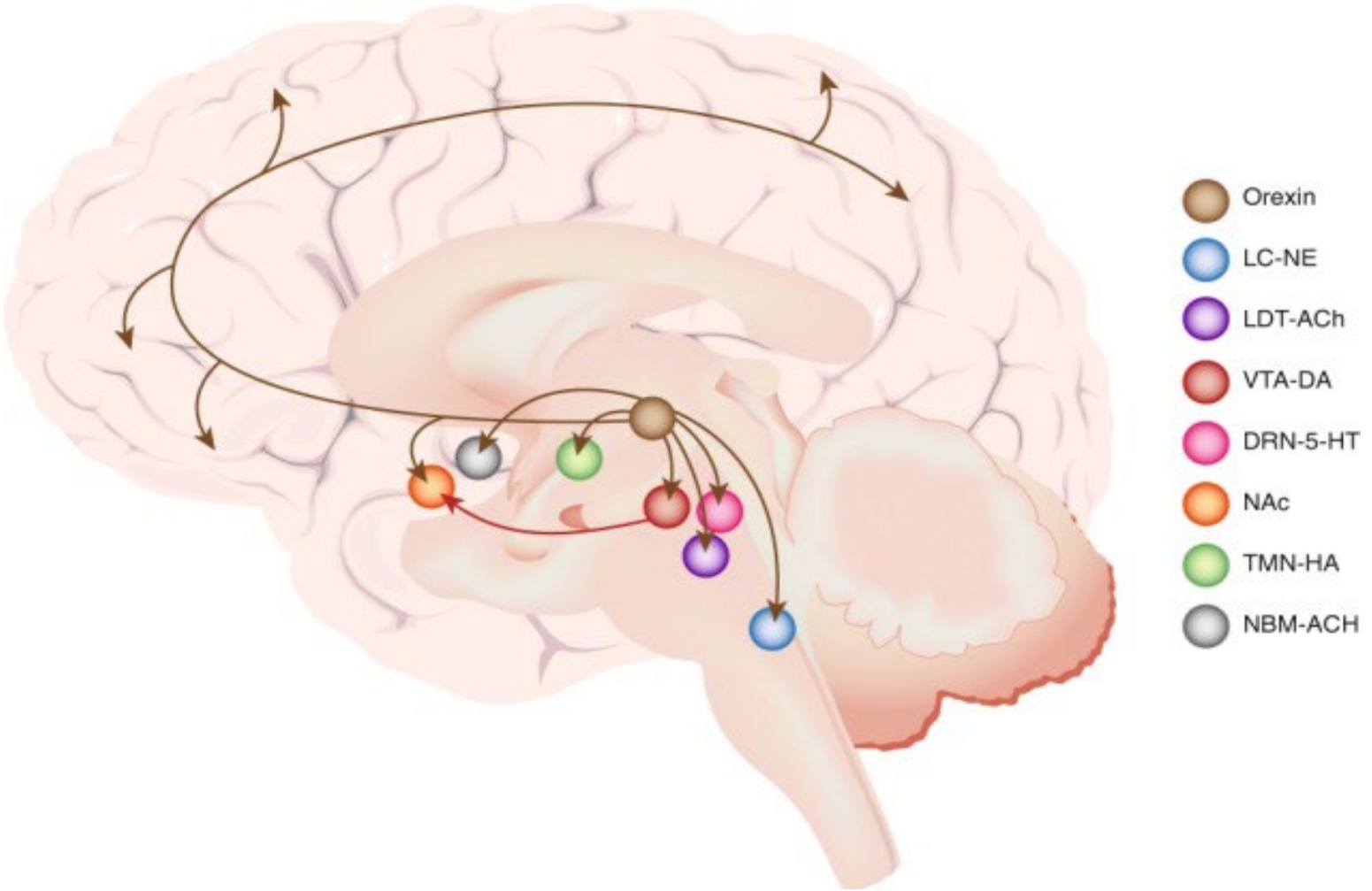
- **Daridorexant:** equipotent antagonist for OX1R and OX2R and increases REM and non-REM
- **Lemborexant:** OX1R and OX2R antagonist, but higher affinity for OX2R and possibly increases REM preferably



BZD, benzodiazepine; DORA, dual orexin receptor antagonist; GABA, gamma -Aminobutyric acid OX1R, orexin 1 receptor; OX2R, orexin 2 receptor; REM, rapid eye movement; Non-REM, non-rapid eye movement; Z-drugs, benzodiazepine-like drugs.

Idorsia Pharmaceuticals Ltd. "QUVIVIQ® Product Monograph," January 8, 2024. https://pdf.hres.ca/dpd_pm/00074121.PDF.
Eisai Limited. Dayvigo Product Monograph. Mississauga, Ontario: Eisai Limited, 2020.
Moline M, et al. J Clin Sleep Med. 2021;17(6):1167–1174

Orexins, Insomnia and Mental Health Disorder: A Complex Story



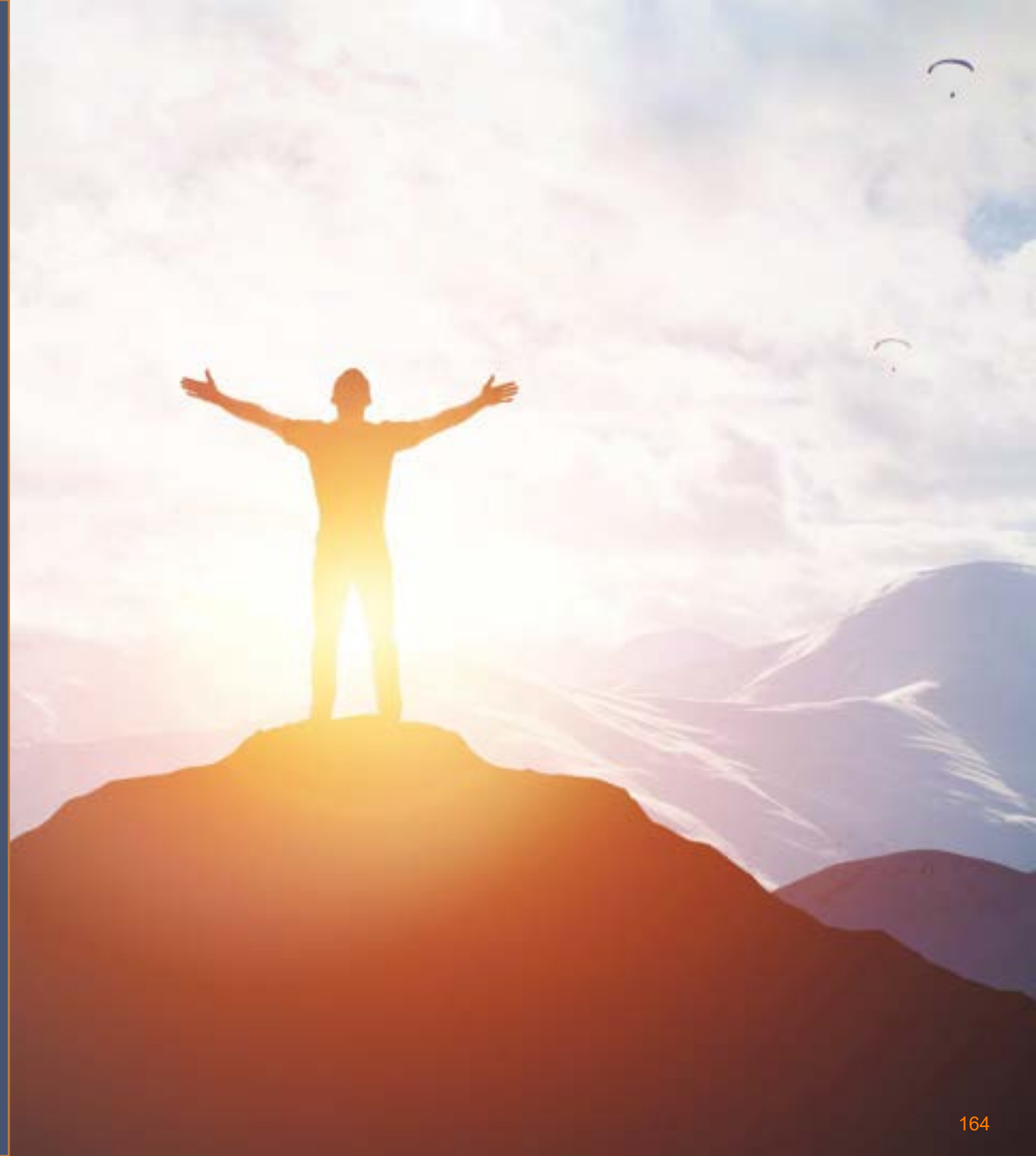
Valentino and Volkow, Neuropsychopharm, 2019

Insomnia and Depression: A Bidirectional Relation

- Non-depressed people with insomnia have a twofold risk to develop depression, compared to people with no sleep difficulties.
- Insomnia is related to decreased quality of life, social and interpersonal functioning, and workplace performance, and any of these could result in levels of distress or life events that may trigger, maintain, or worsen MDD.
- Insomnia promotes a level of circadian misalignment that may also contribute to decrements in diurnal mood and performance.
- Sleep loss or sustained wakefulness may cause alterations in neurobehavioral functions that may result in depression.

Baglo et al, J Affective Disorder, 2011, Taylor, Daniel Sleep, 2008

ASSESSMENT & DIAGNOSIS OF INSOMNIA



Assessment:
What to do when a patient is concerned about sleep?

1 Perform a sleep history:

- Ask about symptoms, sleep quality and duration, activities before bed, potential contributing factors

2 Assess severity of symptoms:

- *How much is insomnia affecting your daily life?*
- *What is the impact on your quality of life, family, work, etc.?*

3 Screen for comorbidities or other underlying causes:

- If a comorbid sleep disorder (e.g., circadian rhythm disorder, sleep apnea) is suspected, refer the patient to a specialist/sleep clinic for further assessment

Adapted from: Centre for Effective Practice. (January 2017). Management of Chronic Insomnia: Ontario. Toronto: Centre for Effective Practice.

Screen for and Address Any Underlying Causes of Insomnia

MEDICAL CONDITIONS

- Pain
- Other sleep disorders (e.g., sleep apnea)
- Reflux
- Metabolic issues
- Parkinson's disease
- Alzheimer's disease
- Gender-specific
  - Menopause
  - Prostate issues

MENTAL ILLNESS

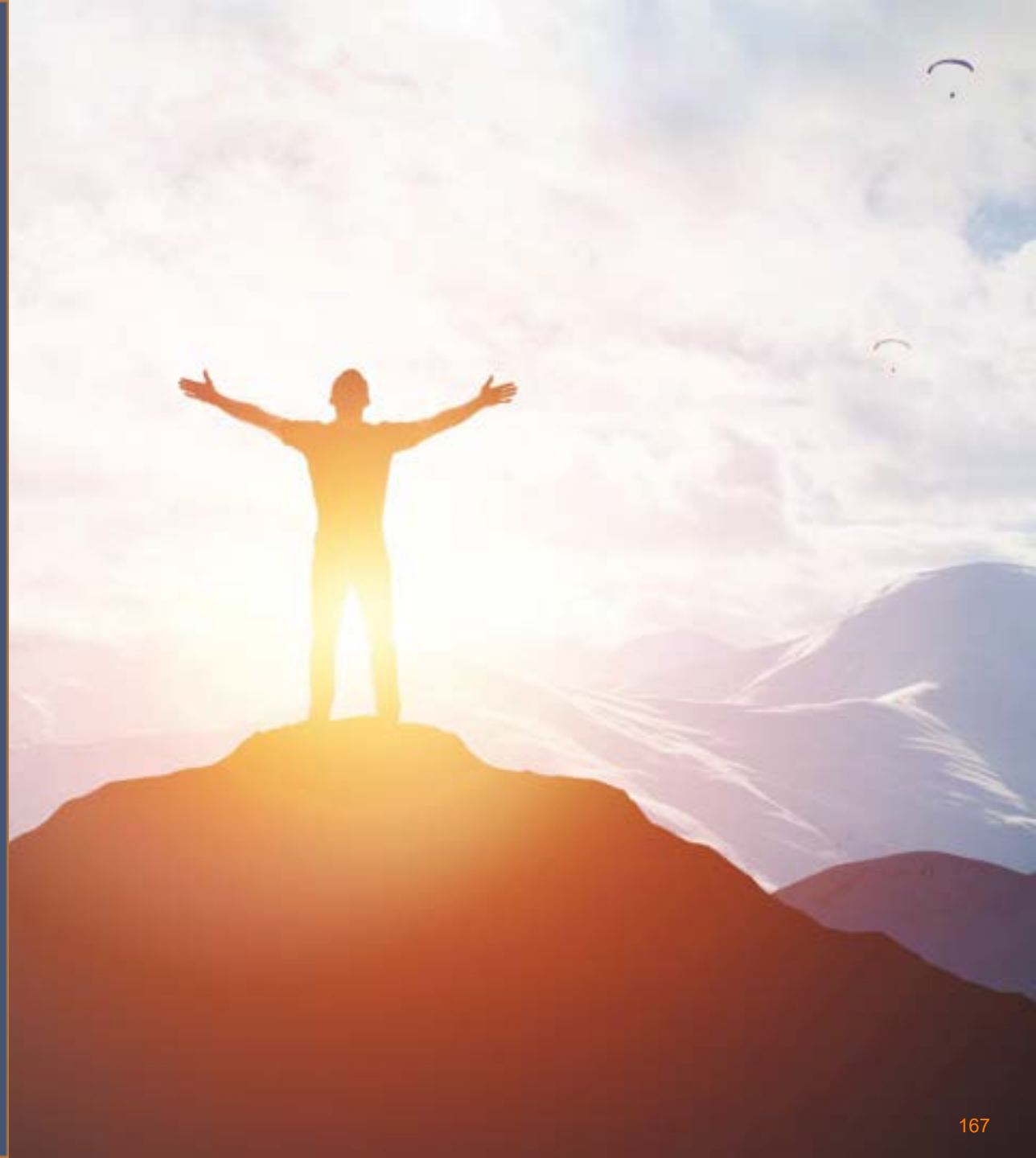
- Mood/anxiety disorders
  - 80% of patients report insomnia
  - Most common symptom of recovered patients
- Schizophrenia
- Substance use disorders
- Psychosocial stressors

CONTRIBUTING MEDICATIONS/SUBSTANCES

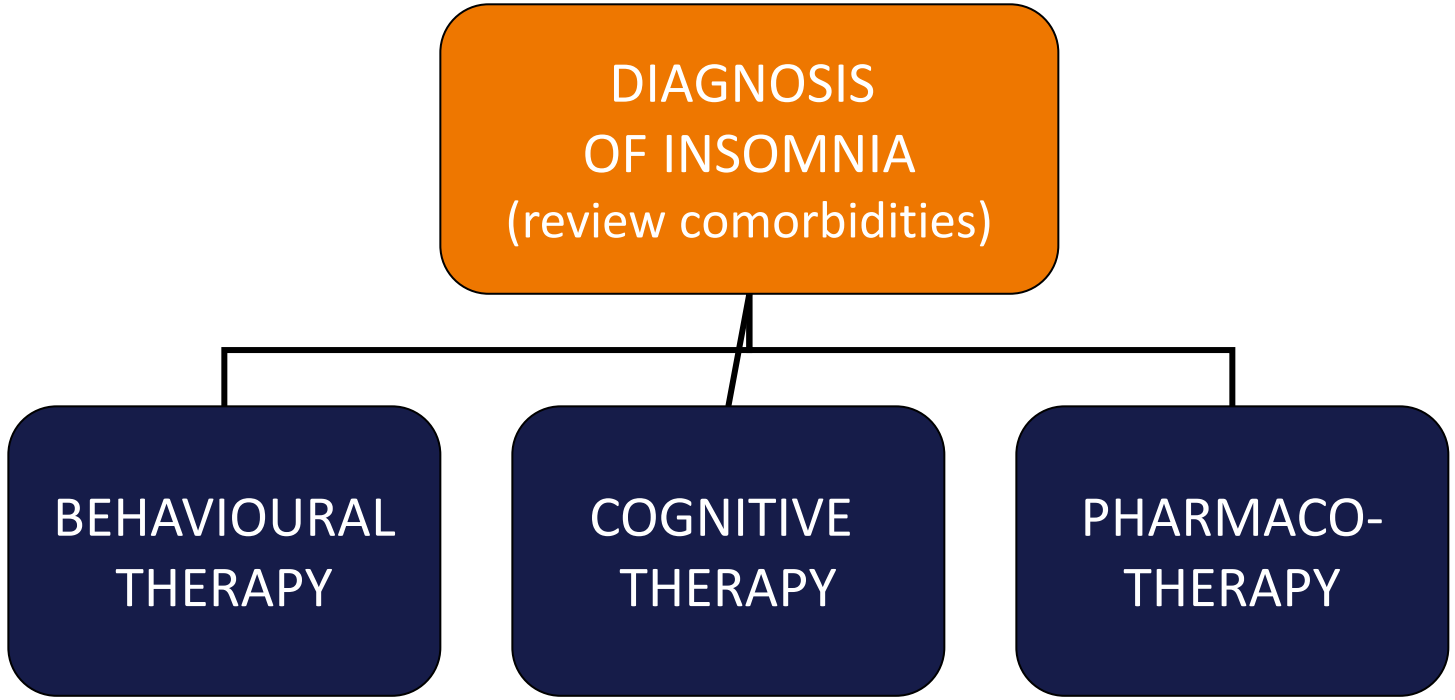
- Steroids
- Bronchodilators
- Cardiovascular meds
- Decongestants
- Narcotic analgesics
- Stimulants
- Antidepressants
- OTC medications (especially stimulants)
- Substances (e.g., nicotine, cannabis, alcohol)

Medscape Neurology.. 2009. Available at: http://www.medscape.org/viewarticle/585753 Accessed March 15, 2021.
McCrae CS, et al. *Sleep Med Rev.* 2001;5:47-61.
Schutte-Rodin S, et al. *J Clin Sleep Med.* 2008;4:487-504.

TREATMENT & MANAGEMENT OF INSOMNIA



Treatment for Insomnia



Sleep Hygiene

Sleep Consolidation

Stimulus Control

Relaxation Therapies

Cognitive Behavioral Therapy (CBT)

Hypnotics

Benzodiazepines

Over the Counter (OTC) and Natural Sleep aids

DORA's

Adapted from oward Optimized Practice (TOP) Insomnia Group. 2015 December. Assessment to management of adult insomnia: clinical practice guideline. Edmonton AB: Toward Optimized Practice. Available from: http://www.topalbertadoctors.org

First-line Treatment: Cognitive Behavioural Therapy for Insomnia (CBT-i)

Addresses sleep-related beliefs and behaviours that may perpetuate insomnia

Component	Purpose	Recommendations
Stimulus control	Reduce arousal in sleep environment Associate bed with sleep	Go to bed when sleepy; use bed only for sleep or sexual activity; get out of bed when awake or anxious
Sleep restriction	Increase sleep drive Stabilize circadian rhythm	Reduce amount of time in bed (no less than 5-6 h); gradually increase time in bed as sleep symptoms improve
Sleep hygiene	Minimize behaviors that disrupt sleep drive or increase arousal	Avoid napping; limit caffeine and alcohol; increase exercise (but not close to bedtime); keep bedroom dark and quiet
Cognitive therapy	Restructure maladaptive beliefs about consequences of insomnia	Challenge perception of catastrophic consequences of insomnia; manage expectations about sleep
Relaxation therapy	Reduce arousal (physical, physiological) in sleep environment	Practice breathing exercises, meditation, progressive muscle relaxation

Winkelman JW. *N Engl J Med* 2015;373:1437-444.

Overview of Insomnia Management

- Pharmacotherapy should be considered when CBT-I is unavailable, not feasible, or insufficient, and/or as an adjunct to CBT-I.[1]

Approved Insomnia Therapies in Canada:

Drug Class	Drug	Indication
Benzodiazepines	• Temazepam[2] • Triazolam[3] • Flurazepam[4]	• Adults with short-term* insomnia
Z-drugs	• Zopiclone[5] • Zolpidem[6] • Eszopiclone[7]	• Adults with short-term* insomnia
Dual orexin receptor antagonists (DORAs)	• Lemborexant[8] • Daridorexant[9]	• Adults with insomnia (sleep onset and/or sleep maintenance)
Tricyclic antidepressant	• Low-dose Doxepin[10]	• Adults with insomnia (sleep maintenance only)

CBT-I: cognitive behavioural therapy for insomnia
* Short-term use is defined as 7-10 days according to respective product monographs.
1. Sateia MJ et al. J Clin Sleep Med. 2017;13(2):307–349; 2. TEMAZEPAM Product Monograph; 3. TRIAZOLAM Product Monograph; 4. FLURAZEPAM Product Monograph; 5. IMOVANE Product Monograph; 6. SUBLINOX Product Monograph' 7. LUNESTA Product Monograph; 8. DAYVIGO Product Monograph; 9. QUVIVIQ Product Monograph; 10. SILENOR Product Monograph.

How Do Pharmacotherapies affect Deep Sleep and REM Sleep?

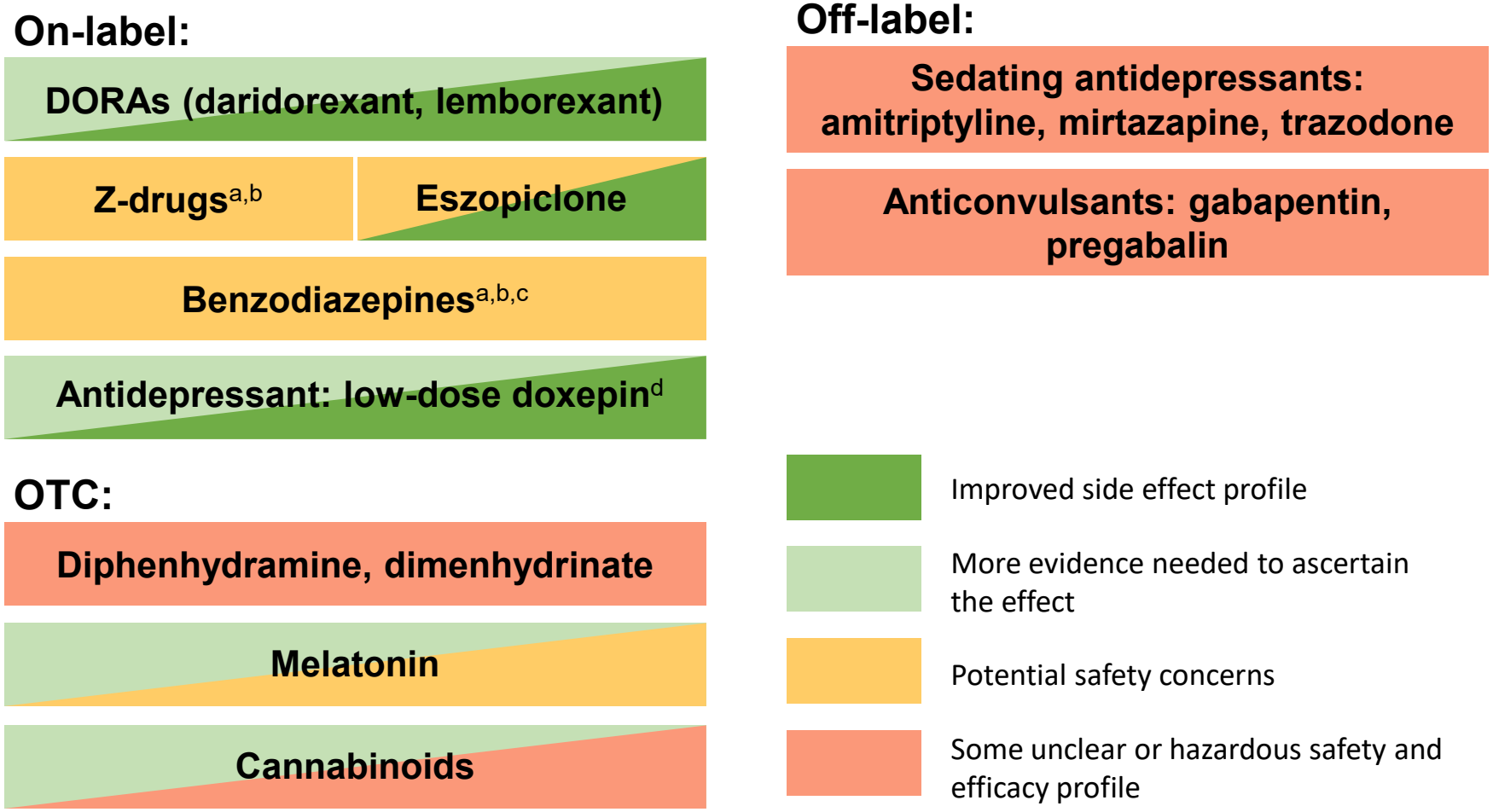
	% Deep Sleep (N3)	% REM Sleep
BZDs	↓↓	↔↓
Non-BZD receptor agonists (Z-Drugs)	↔↑	↔
Trazodone/mirtazapine	↑	↔
SSRIs	↔↓	↓/↓↓
SNRIs	↔↓↑	↔↓
Tricyclic antidepressants	↔↓	↓
2nd generation antipsychotics	↔↓	↔↓
Orexin receptor antagonists (lemborexant)	↔↑	↑

Majority of available sleep medications are associated with suppression or lack of improvement of REM sleep

BZD, benzodiazepines; SSRIs, selective serotonin reuptake inhibitors; SNRIs, serotonin and norepinephrine reuptake inhibitors; REM, rapid eye movement

Adapted from: Alan Lowe 16 Dec 2020. MacFarlane J. *Sleep Review.* 2019. Available at: https://www.sleepreviewmag.com/sleep-treatments/pharmaceuticals/prescription-drugs/the-effects-of-psychotropic-and-neurotropic-medications-on-sleep/ Accessed June 11, 2021. Rosenberg R, et al. *Sleep Med.* 2005;6:15-22. 6Rosenberg R, et al. *JAMA Network Open.* 2019;2:e1918254.

Canadian Expert Consensus Recommendations: Pharmacotherapy of Insomnia



*The medications are presented in an order that is independent of treatment sequencing. CBT-I remains first-line therapy.
[a]Potential association with dementia. [b]Potential adverse effects include daytime drowsiness, risk of fall and motor vehicle accidents, risk of addiction and abuse, and rebound insomnia after discontinuation. [c]Risk of tolerance. [d]Based on evidence.
CBT-I, cognitive behavioural therapy for insomnia; DORA, dual orexin receptor antagonist; OTC, over-the-counter.
1. Morin CM, et al. Sleep Med. 2024;124;598–605.

Pharmacokinetic Spotlight

Lemborexant

- **Dose: 5-10 mg**
- **Onset**: 15-20 minutes[7]
  - Administer a few minutes before bedtime
- **Time to peak**: within 1-3 hrs; delayed ~2hr with a high-fat meal[9]
- **Effective half-life**: 17-19 hrs[9]
- **Hepatic metabolism**[9]
  - Primarily by CYP3A
  - M10 metabolite activity is minimal
- **Contraindications**[9]
  - Hypersensitivity to drug or formulation
  - Narcolepsy

Daridorexant

- **Dose: 50 mg**
- **Onset**: ~35-40 mins (25 mg), ~30 mins (50 mg)[8]
  - Administer within 30 minutes of bedtime
- **Time to peak:** within 1-2 hrs; delayed ~1.3hr with a high-fat, high-calorie meal[10]
- **Terminal half-life**: 8 hrs[10]
- **Hepatic metabolism**[10]
  - Primarily by CYP3A4 (89%)
  - M1, M3, M10 metabolites have no pharmacological effect
- **Contraindications**[10]
  - Concomitant use with strong CYP3A4 inhibitor
  - Hypersensitivity to drug or formulation
  - Narcolepsy

6. Rosenberg RP, Benca R, Doghramji P, Roth T. A 2023 update on managing insomnia in primary care: insights from an expert consensus group. Prim Care Companion CNS Disord. 2023;25(1):22nr03385. doi:10.4088/PCC.22nr03385
7. Lemborexant. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. **8.** Daridorexant. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. **9**. DAYVIGO Product Monograph. Eisai Limited. June 2023. **10.** QUVIVIQ Product Monograph. Idorsia. January 2024.

Insomnia and mood disorder often go hand-in-hand

All patients with insomnia symptoms

Evaluate for mood disorders and other comorbidities

All patients with mood disorders

Evaluate for insomnia

1. Morin et al. J. Clin. Med. 2023;12:1975.
2. Khurshid A. et al. Innov Clin Neurosci. 2018;15(3–4):28–32.

174

Insomnia and Depression: CANMAT Guidelines

MDD treatment

- CANMAT guidelines suggest agomelatine* as a first-line treatment in MDD with sleep disturbance; with mirtazapine, trazodone, and quetiapine XR as second-line options
- However, mirtazapine, trazodone, and quetiapine also have the highest adverse event rates of somnolence and daytime sedation

* Currently not available in Canada

1. Lam R, et al. Can J Psychiatry. 2024 May 6:7067437241245384
2. Merrill et al. Ann Gen Psychiat. 2023;22:23.
3. Khurshid et al. Innov Clin Neurosci. 2018;15(3–4):28–32.
4. Kunz. CNS Drugs. 2023;37(1):93–106
5. Shigetsura Y. et al. Clin Neuropharmacol. 2022;45(3):52-60.

175

Evidence supporting simultaneous treatment of comorbid insomnia and mood disorders

Adding CBT-I to antidepressant therapy

- One study showed similar MDD outcomes but improved sleep among patients who received escitalopram
  +/- CBT-I
- A small study (n=30) showed higher remission for insomnia and depression when CBT-I was added to escitalopram
- In a 3-year study, CBT-I was more effective in treating both insomnia and MDD symptoms than CBT for depression alone

Adding insomnia medication to antidepressant therapy

- In 2 large randomized trials, adding a Z-drug (eszopiclone or zolpidem extended release) to an SSRI improved sleep and/or MDD symptoms more than the SSRI alone
- Adding zolpidem to escitalopram in patients with GAD resulted in better sleep than escitalopram alone

Morin et al. J. Clin. Med. 2023;12:1975.

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DORA's and Depression: What is the Evidence

- Systematic Review
- Robust, level 1 evidence is missing
- Several, open label, retrospective
- Suvorexant most studies
- Several studies, open label, with Lemborexant but in mixed psychiatric populations, including MDD
- Insomnia improves, mixed results with improvement of depressive symptoms, but trending towards bidirectional improvement with insomnia and depressive symptoms with strong effect sizes

Gabera et al, Depression Anxiety, 2018, Kishi et al, Trans Psychiatry, 2024

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Effect of lemborexant in patients with insomnia comorbid with depressive episodes (SELENADE)

Yoshikazu Takaesu[1], Hiroyuki Muraoka[2,3], Masahiro Takeshima[4], Masaki Kato[5], Hirofumi Hirakawa[6], Hikaru Hori[7], Ken Inada[3], Hitoshi Sakurai[8], Motohiro Ozone[9], Michinori Koebis[10], Margaret Moline[11], Yoshiteru Takekita[5]

Study Purpose and Objectives

- To examine the efficacy and safety of LEM for insomnia associated with depressive episodes.

Primary Objective

- To evaluate the change in insomnia severity from baseline according to the total score of the Insomnia Severity Index (ISI) 4 weeks after initiating LEM treatment.

Secondary Objectives

1. To assess changes in ISI from baseline at 8 and 12 weeks.
2. To evaluate the changes from baseline in the Hamilton Depression Rating Scale (HAM-D-17) and the Young Mania Rating Scale (YMRS)* at 4, 8, and 12 weeks.
3. To assess changes from baseline in subjective sleep parameters**, and patients' global impression of treatment at weeks 4, 8, and 12.
4. Safety outcomes (incidence, severity, and nature of TEAEs) during 12-week LEM period.

*Assessed only for participants with BD
**Included sSOL, sWASO, subjective number of awakenings, sTST, and sSE.
MDD: Major Depressive Disorder, BD: Bipolar Disorder, LEM: Lemborexant; TEAE: treatment-emergent adverse event

1. Takaesu, Y., Muraoka, H., Takeshima, M. et al. A 12-Week, Open-Label, Multicenter Pilot Study to Evaluate the Efficacy and Safety of Lemborexant in Patients with Insomnia Comorbid with Depressive Episodes (SELENADE). CNS Drugs (2025). https://doi.org/10.1007/s40263-025-01245-w

Conclusions

- LEM treatment led to significant improvement in insomnia severity
  - The total ISI score showed significant improvement 4 weeks after starting LEM treatment, and this effect was generally maintained through week 12.
  - Although the change in the total ISI score from baseline was not statistically significant at some assessment points, it ranged from -6.0 to -8.9 for each cohort at 12 weeks, approaching the normal range of scores ≤ 7.
- LEM treatment led to significant improvement in depressive symptoms
  - The total HAM-D-17 score significantly decreased across all cohorts, and after 12 weeks, fell below the remission threshold of 7 points in the MDD add-on, MDD monotherapy, and BD monotherapy cohorts.
  - Improvement was also observed in the total HAM-D-17 score excluding items related to sleep, suggesting the possibility that depression symptoms could improve with LEM treatment.

HAM-D-17: the 17 item Hamilton Rating Scale for Depression, MDD: Major Depressive Disorder, ISI: Insomnia Severity Index, LEM: lemborexant, BD: Bipolar Disorder

1. Takaesu, Y., Muraoka, H., Takeshima, M. et al. A 12-Week, Open-Label, Multicenter Pilot Study to Evaluate the Efficacy and Safety of Lemborexant in Patients with Insomnia Comorbid with Depressive Episodes (SELENADE). CNS Drugs (2025). https://doi.org/10.1007/s40263-025-01245-w

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Strategies when switching insomnia therapies

Slow Taper Method

Gradual dose reduction of insomnia drug, with lowering by increments every few days, usually over a period of 4 weeks, with the goal of discontinuing
the medication

Cross Taper (Two Methods)

The first insomnia drug dose is reduced while a new insomnia medication is introduced at a low dose and gradually increased

Starting new medication titrate to full dose prior to considering taper of other medication

Taper and Wait 1–2 Days

Similar to the slow taper method of gradually decreasing the dose until discontinuation, followed by a withholding period of 1–2 days before any new insomnia medication is started

Direct Switch

The first insomnia drug is stopped, and a new insomnia drug is commenced the next day at the usual therapeutic dose

BZD, benzodiazepine; Z-drug, benzodiazepine-like drug.

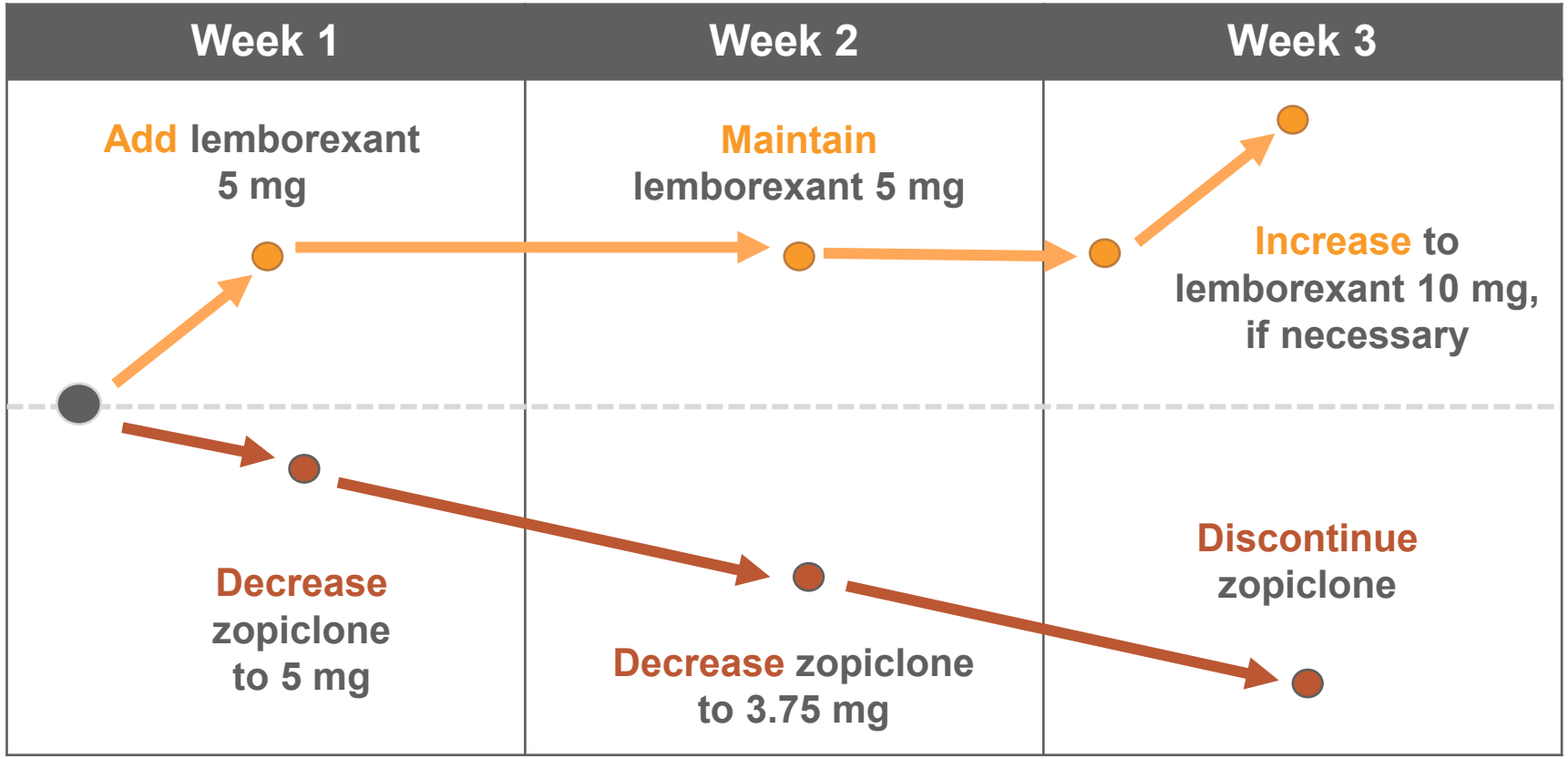
1. Pottie, Kevin, Wade Thompson, Simon Davies, Jean Grenier, Cheryl A. Sadowski, Vivian Welch, Anne Holbrook, et al. “Deprescribing Benzodiazepine Receptor Agonists: Evidence-Based Clinical Practice Guideline.” Canadian Family Physician 64, no. 5 (May 2018): 339-351. 2. Watson, NF. et al., Journal of Clinical Medicine 12, no. 7 (March 25, 2023): 2493.

A Cross-Taper Switching Approach Can Help Ensure Proper Pacing and Patient Comfort

SwitchRx is an online resource that provides health care professionals with current and practical information to guide their practice when adjusting their patient's psychotropic treatment regimens.

SwitchRx recommends:

- Starting with a **lemborexant** dose of 5 mg in the first week, optionally tapering up to 10 mg by the third week[1]
- Halving the dose of **zopiclone** in the first week, and discontinuing it altogether by the third[1]

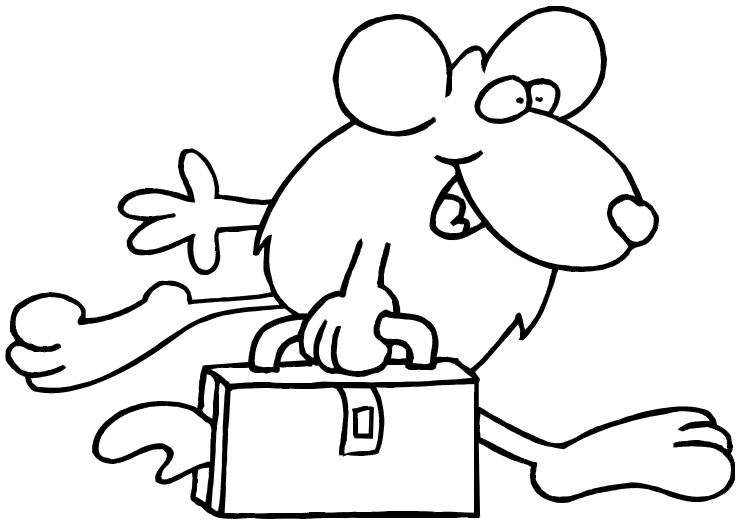


1. SwitchRx. https://switchrx.com. Accessed July 9, 2022

Insomnia and Depression: Concluding thoughts and suggestions

- Screen for Insomnia routinely
- Screen for MDD and other mental health disorders
- Follow evidence based approaches
- Consider DORA's as first line for Insomnia with MDD

Be Different, Don’t Do The Same Old, Same Old



THANK YOU !

Spotting Alzheimer's Early: From Recognition to Current and Emerging Therapies

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Personal Disclosures

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Honoraria:	CCRN

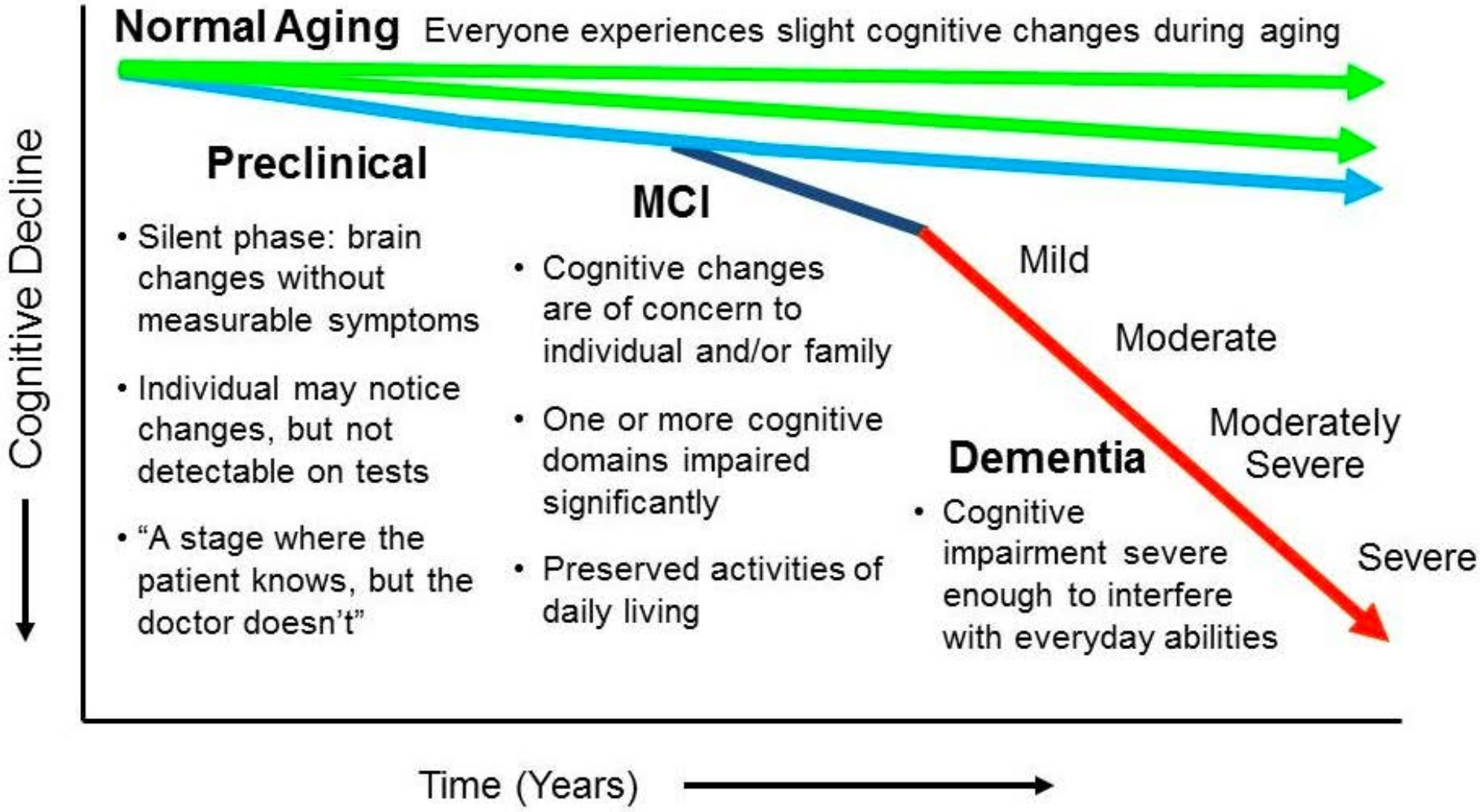
Learning Objectives

- Identify early signs and perform screening when indicated in primary care.
- Initiate treatment for early Alzheimer's.
- Explore emerging therapies for Alzheimer's.

What is Alzheimer's Disease?

- Common, may account for as much as 60-70% of all dementia cases
- A form of dementia characterized by gradual, progressive impairment in cognition and memory
- Typically affects adults aged 65 or older, with prevalence increasing with age
- Interferes with function and ability to perform daily activities
- Precise underlying cause is unknown
- Key pathological features may include beta-amyloid plaques and neurofibrillary tangles (tau protein)

Clinical Spectrum of Alzheimer's Disease



DSM V – Major Neurocognitive Disorder

A. Evidence of significant cognitive decline from a previous level of performance in one or more cognitive domains:
- Learning and memory
- Language
- Executive function
- Complex attention
- Perceptual-motor
- Social cognition

B. The cognitive deficits interfere with independence in everyday activities. At a minimum, assistance should be required with complex instrumental activities of daily living, such as paying bills or managing medications.

C. The cognitive deficits **do not occur exclusively in the context of a delirium.**

D. The cognitive deficits are **not better explained by another mental disorder** (eg, major depressive disorder, schizophrenia).

Clinical Criteria, Simplified

- Subjective **cognitive decline in 1 or more domains**
- **Objective impairment** on cognitive testing
- **Impaired function** in IADLs +/- ADLs as a direct result of cognitive decline (cf. MCI where function is preserved)
- Cognitive symptoms are not attributable to alternative medical (including **delirium**) or psychiatric causes

Case Finding in Primary Care

- Routine cognitive testing of asymptomatic older adults generally *not* recommended
- Consider inquiring about cognitive symptoms and/or further evaluation in at-risk individuals:
  - Reported cognitive symptoms by the patient or an informant
  - Unexplained decline in instrumental activities of living
  - Missed appointments or difficulty remembering or following instructions or taking medications
  - Decrease in self-care
  - Victim of financial scams
  - New onset later-life behavioral changes including new depression or anxiety
  - Those of very advanced age, a recent episode of delirium, or with risk factors such as diabetes

Ismail Z, Black SE, Camicioli R, et al. Recommendations of the 5th Canadian Consensus Conference on the diagnosis and treatment of dementia. *Alzheimers Dement*. 2020;16(8):1182-1195. doi:10.1002/alz.12105

Key Pearls About Establishing Concern

- "Due to variability in insight into cognitive, functional, and behavioral changes, **report from a reliable informant** is an essential component for the assessment of patients with suspected neurocognitive disorders"
- Early impairment in short term memory is a hallmark of Alzheimer's disease
- Use an objective tool to evaluate cognitive function (e.g. Mini Cog as initial screen, MoCA or RUDAS if time allows)
  - MoCA superior to the MMSE to detect MCI
- Establish impact on function either from history or using a tool (e.g. Pfeffer Functional Activities Questionnaire)

Ismail Z, Black SE, Camicioli R, et al. Recommendations of the 5th Canadian Consensus Conference on the diagnosis and treatment of dementia. *Alzheimers Dement*. 2020;16(8):1182-1195. doi:10.1002/alz.12105

Next Steps

- Basic laboratory investigations: CBC, TSH, electrolytes (sodium), extended electrolytes (calcium), fasting glucose, B12 +/- syphilis and HIV depending on history

- Cross sectional imaging (MRI superior to CT)

- For **patients with a positive corroborative history**, referral to a primary or specialty care memory clinic, and further investigation with laboratory testing, neuroimaging, detailed neuropsychiatric testing can be considered

An Alternate View: Using Biomarkers to Define Alzheimer's Disease

- Ongoing debate whether clinical symptoms should define AD versus biomarkers alone → separate syndrome from biology

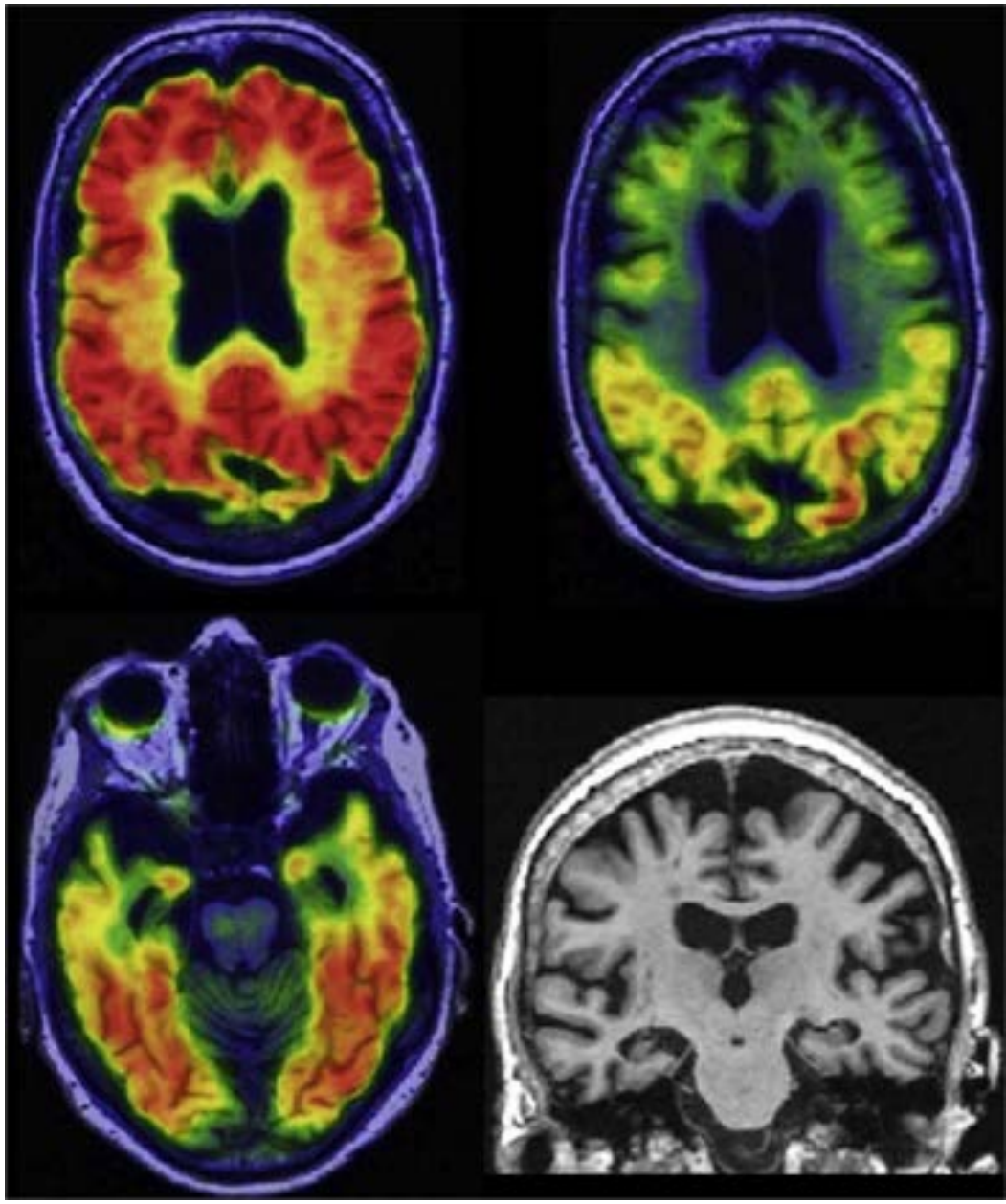
- Of increasing interest given new emerging therapies and opportunity to intervene prior to onset of clinical disease

- NIA-AA proposes distinct biological and clinical dimensions when evaluating a patient for AD
  - Presence of early-changing "Core 1" biomarkers is sufficient to establish a diagnosis of AD, even if the patient has no symptoms

Jack CR Jr et al. Revised criteria for diagnosis and staging of Alzheimer's disease: Alzheimer's Association Workgroup. *Alzheimers Dement*. 2024;20(8):5143-5169. doi:10.1002/alz.13859

Biomarkers for AD

- Amyloid/tau PET – limited access in Ontario
- CSF amyloid/tau – research study or private pay; requires a lumbar puncture
- Blood based biomarkers
  - Multiple products now available in Ontario
  - Private pay ($600)



Jack CR Jr. NIA-AA Research Framework: Toward a biological definition of Alzheimer's disease. *Alzheimers Dement*. 2018;14(4):535-562. doi:10.1016/j.jalz.2018.02.018

Blood Based Biomarkers in Primary Care

- Interpretation of current products is complex
  - Medical comorbidities may influence results: CKD, elevated BMI, history of MI/stroke, medications (e.g. sacubitril–valsartan, medications impacting renal clearance)
  - Limited validation in different ethnic groups
  - Commercial products have varying test performance/interpretation
  - Tests may give “intermediate” result leading to anxiety, additional testing
  - Positive result in someone without clinical disease may lead to anxiety, stigma
- Applicability in primary care unclear; current guidelines apply only to specialty memory care and recommend biomarkers primarily as a triaging test to identify AD pathology
- CCDTD5 guidelines (2020) recommend use only for research
- Current performance of tests is such that role is limited in low prevalence settings or in people without overt cognitive complaints
- Potential future role to identify people eligible for novel therapies

Palmqvist S et al. Alzheimer's Association Clinical Practice Guideline on the use of blood-based biomarkers in the diagnostic workup of suspected Alzheimer's disease within specialized care settings. *Alzheimers Dement*. 2025;21(7):e70535. doi:10.1002/alz.70535

Polling Question

Q4. A 78 year old woman visits your office for a periodic health exam. She reports no particular concerns including no cognitive or mood complaints. She mentions in passing that she had some "trouble at the bank" but that it has been resolved. What would be your next step?

A. Perform a MoCA because she is over 65
B. Don't perform cognitive testing because she is asymptomatic
C. Inquire further about potential cognitive red flags
D. Order a blood based biomarker for amyloid pathology

Polling Question

Q5. An 82 year old man in your practice was recently admitted to hospital with an episode of delirium. During the admission he was diagnosed with "mild Alzheimer's" according to the discharge summary. No treatment was initiated. What would be appropriate next steps during your follow up visit?

A. Ensure patient and any caregivers are aware of the diagnosis and the associated prognosis
B. Review safety considerations including driving
C. Refer him to a Memory Clinic for potential consideration of lecanemab
D. Review his medications and consider modifying or stopping those with cognitive effects

Treatment of Early Alzheimer's Disease

- Non pharmacologic
  - Disclose diagnosis and provide relevant education and resources to patient and family (e.g. Alzheimer Society First Link referral)
  - Patient and family should be aware of progressive nature of deficits to inform future planning
  - Consider home safety, driving
- Pharmacologic
  - Review medications and consider discontinuing those associated with cognitive impact (e.g. anticholinergic, benzodiazepine, etc.)
  - For those meeting criteria for dementia, cholinesterase inhibitors (e.g. donepezil) are current first line treatment

What if My Patient Has MCI?

- Consider consultation to confirm diagnosis
- Advise them of potential to develop dementia (5%-20% annually)
- Reassess cognition longitudinally (e.g. every 6 months)
- Advise lifestyle interventions such as control of vascular risk factors, avoidance of alcohol use and smoking, physical activity, social engagement, hearing screening

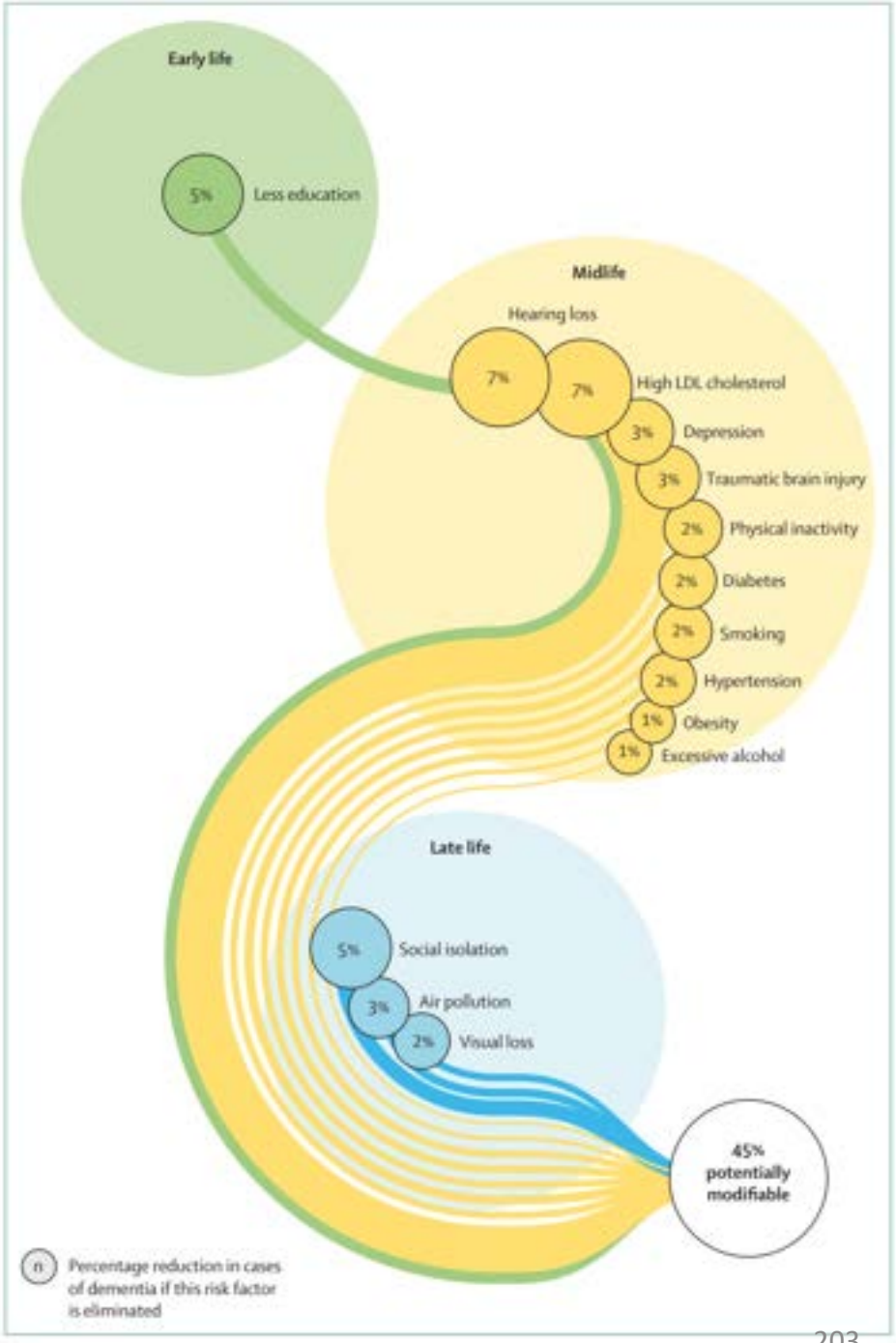
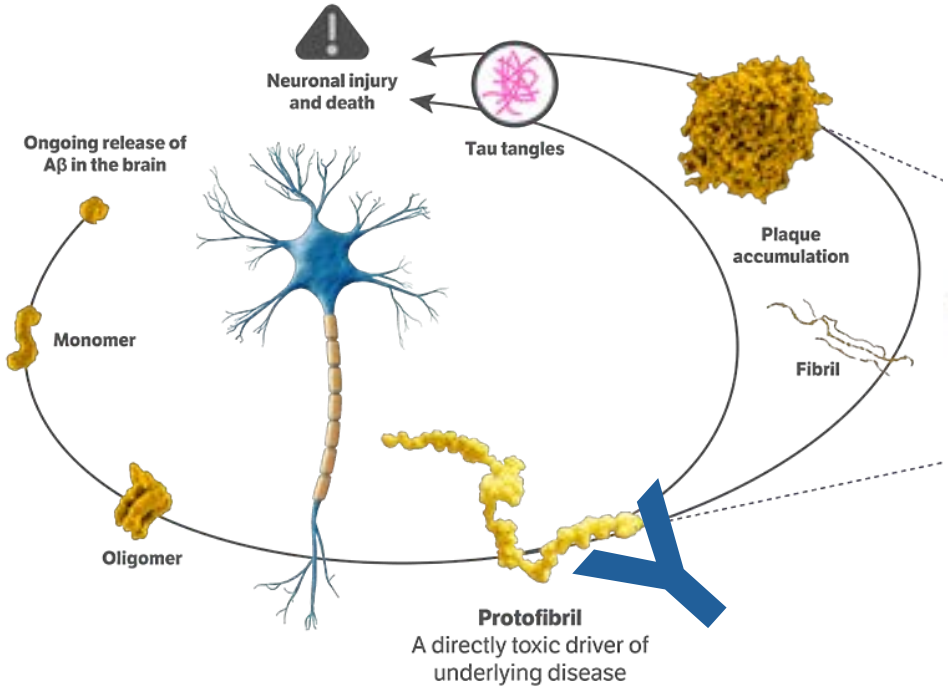


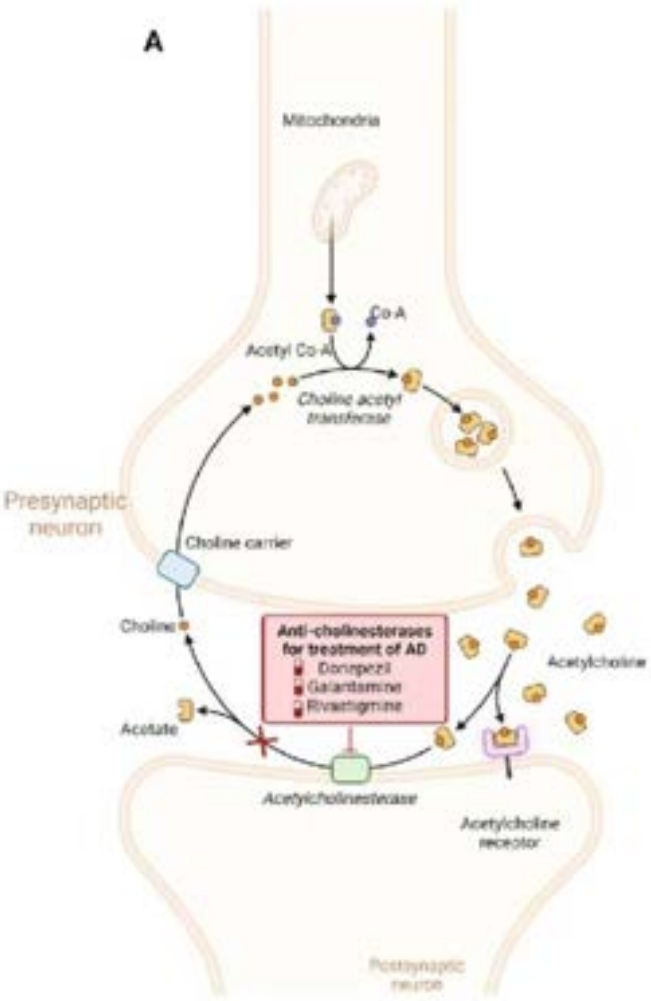
Figure 9: Population attributable fraction of potentially modifiable risk factors for dementia

Livingston G, Huntley J, Liu K et al. Dementia prevention, intervention, and care: 2024 report of the *Lancet* standing Commission The Lancet, 2024; 404, 572-628

New Paradigm?

- New anti amyloid antibodies in clinical use in several world markets
- Lecanemab (Leqembi®) approved by Health Canada in October 2025
- Targets primarily amyloid protofibrils (precursors) that cause neuronal injury

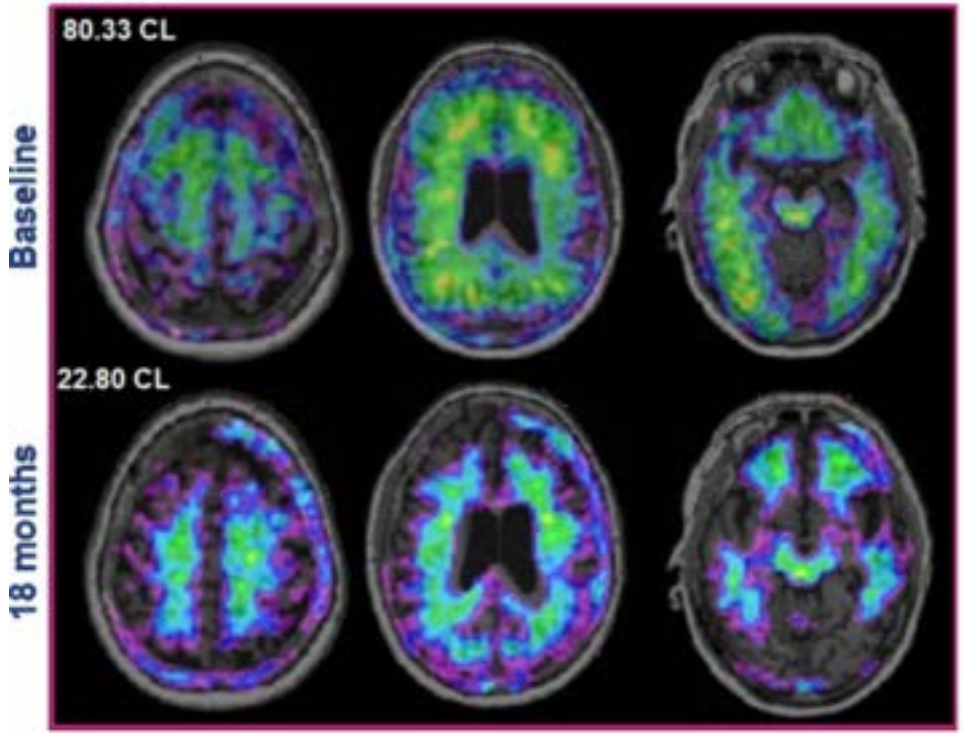


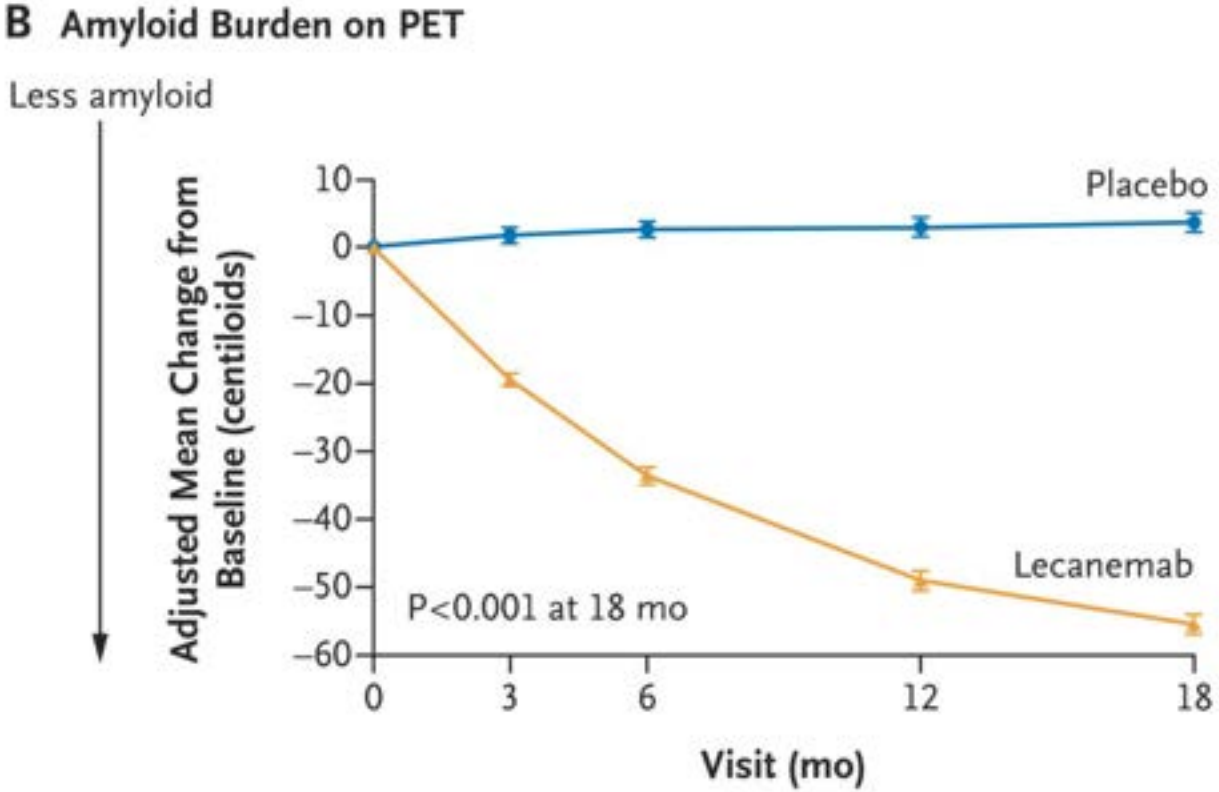


Valdez-Gaxiola CA, Rosales-Leycegui F, Gaxiola-Rubio A, Moreno-Ortiz JM, Figuera LE. Early- and Late-Onset Alzheimer's Disease: Two Sides of the Same Coin?. Diseases. 2024;12(6):110. Published 2024 May 22. doi:10.3390/diseases12060110
https://www.leqembihcp.com/about/mechanism-of-action

Anti Amyloid Therapies

- Highly effective at clearing amyloid
- Partial correction of other markers

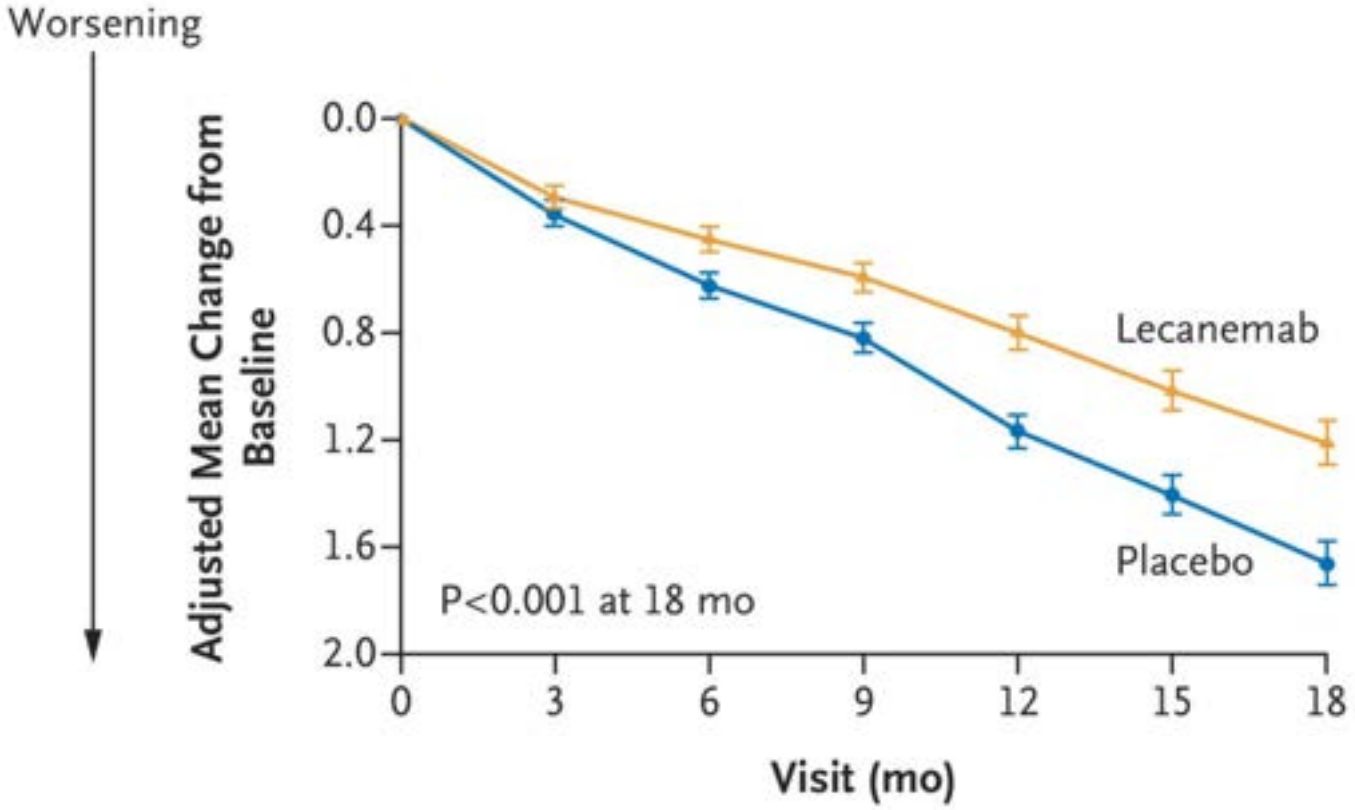




van Dyck CH, Swanson CJ, Aisen P, et al. Lecanemab in Early Alzheimer's Disease. *N Engl J Med*. 2023;388(1):9-21. doi:10.1056/NEJMoa2212948
https://appliedradiology.com/articles/-phase-3-clarity-ad-study-shows-reduction-in-amyloid-beta-pathology-and-biomarker-changes

Clinical Effects

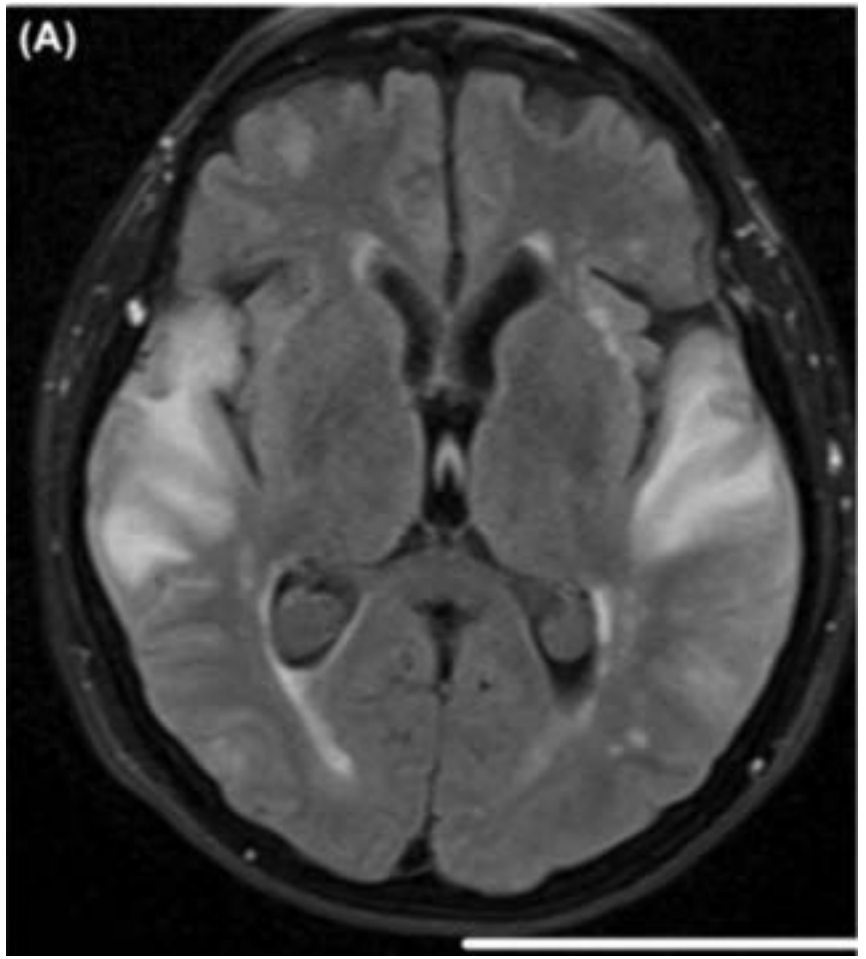
- In people with early AD, cognitive decline slowed by ~27% versus placebo over 18 months when measured using CDR-SB
- Absolute effect of 0.45 points on an 18 point scale
- Open label extension suggestive of accruing benefit at 36 months of treatment duration



van Dyck CH, Swanson CJ, Aisen P, et al. Lecanemab in Early Alzheimer's Disease. *N Engl J Med*. 2023;388(1):9-21. doi:10.1056/NEJMoa2212948
van Dyck CH, Sperling R, Johnson K, et al. Long-term safety and efficacy of lecanemab in early Alzheimer's disease: Results from the clarity AD open-label extension study. Alzheimers Dement. 2025;21(12):e70905. doi:10.1002/alz.70905

Safety

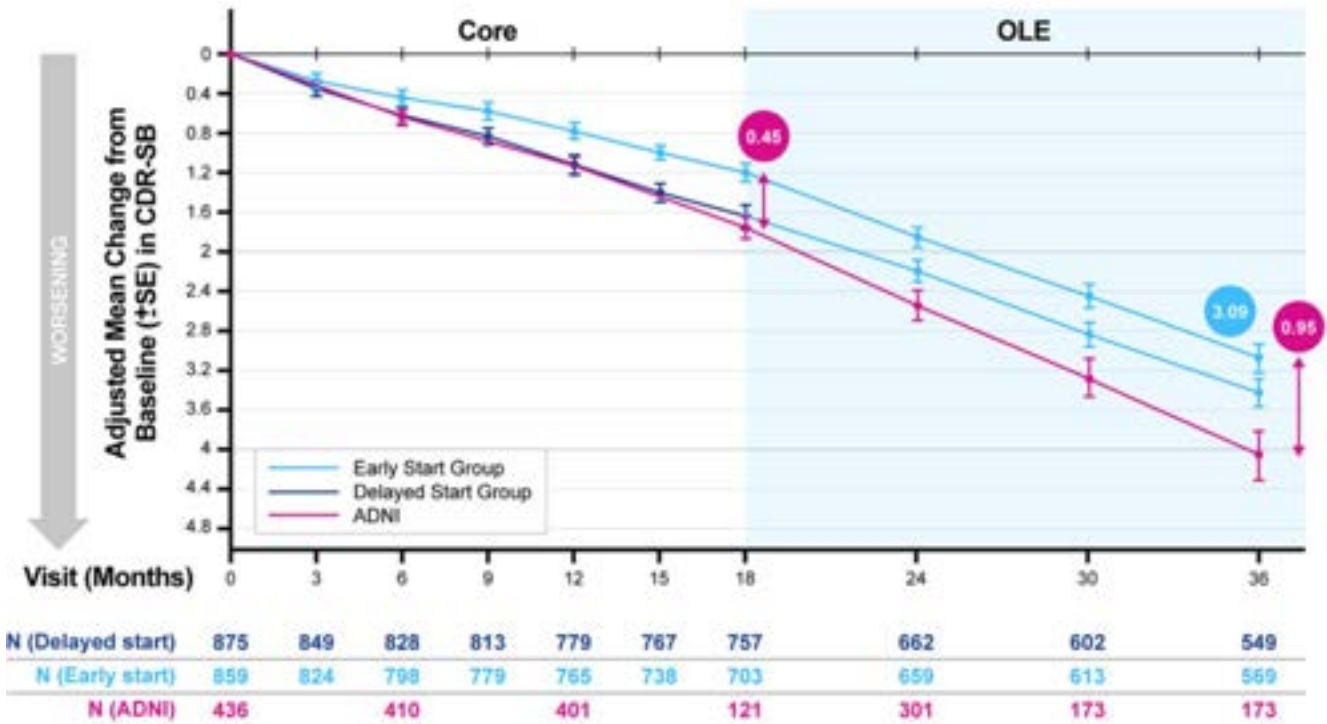
- Amyloid related imaging abnormalities (ARIA)
  - ARIA-E (edema): 13% for lecanemab vs 2% for placebo
  - ARIA-H (hemorrhage): 17% for lecanemab vs. 9% for placebo
  - Symptomatic rates lower (2.8% ARIA-E, 0.7% ARIA-H)
  - In CLARITY AD OLE, ARIA-E tended to occur within ~6 months of treatment, ARIA-H more heterogeneous
- No difference in mortality between groups
- Serious infusion reaction in 1.2% of patients receiving lecanemab (0 placebo)
- Rare deaths reported with multiple monoclonal antibodies, primarily from hemorrhage or severe edema
- Fewer ARIA seen in some regions, perhaps as APOEε4 homozygotes excluded (Israel) or possibly differences in genetic risk factors (Japan)



van Dyck CH, Swanson CJ, Aisen P, et al. Lecanemab in Early Alzheimer's Disease. *N Engl J Med*. 2023;388(1):9-21. doi:10.1056/NEJMoa2212948
Vukmir RB. Amyloid-related imaging abnormalities (ARIA): diagnosis, management, and care in the setting of amyloid-modifying therapy. Ann Clin Transl Neurol. 2024;11(7):1669-1680. doi:10.1002/acn3.52042

Practical Considerations

- Funding – Canada's Drug Agency has recommended against funding due to borderline significance in terms of measurable clinical impact and potential harm related to ARIA
  - Individual provinces to make funding decisions
- Current pathway has multiple access challenges (PET and/or CSF testing, APOEε4 genotype, MRI monitoring for ARIA, infusion centre for delivery)
- ? Open-ended treatment window
- ? Role to antagonize multiple parts of pathway simultaneously



van Dyck CH, Sperling R, Johnson K, et al. Long-term safety and efficacy of lecanemab in early Alzheimer's disease: Results from the clarity AD open-label extension study. Alzheimers Dement. 2025;21(12):e70905. doi:10.1002/alz.70905

Polling Question

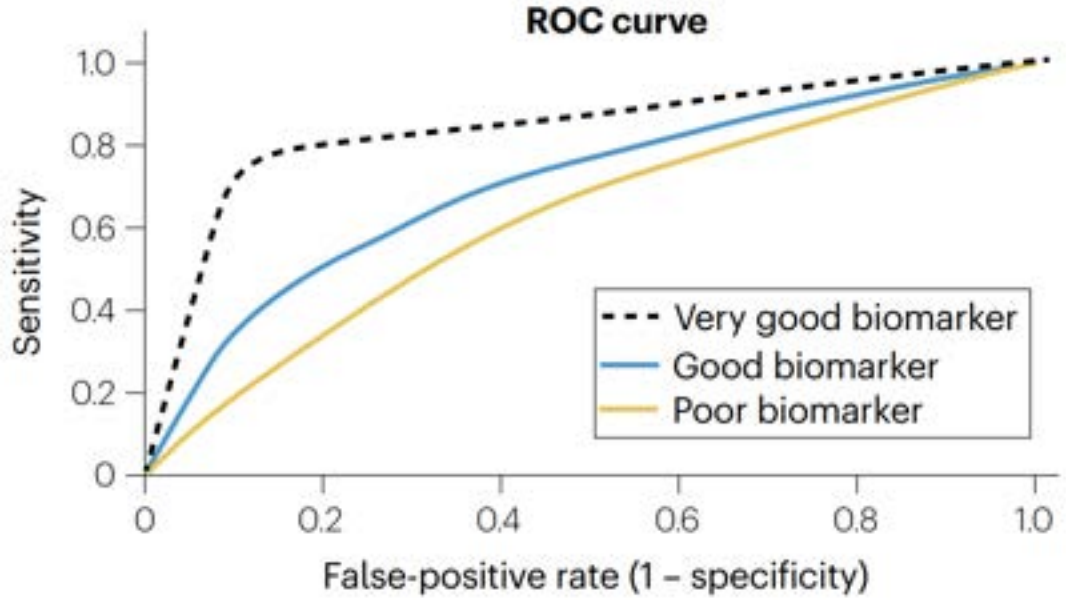
Q5. An 82 year old man in your practice was recently admitted to hospital with an episode of delirium. During the admission he was diagnosed with "mild Alzheimer's" according to the discharge summary. No treatment was initiated. What would be appropriate next steps during your follow up visit?

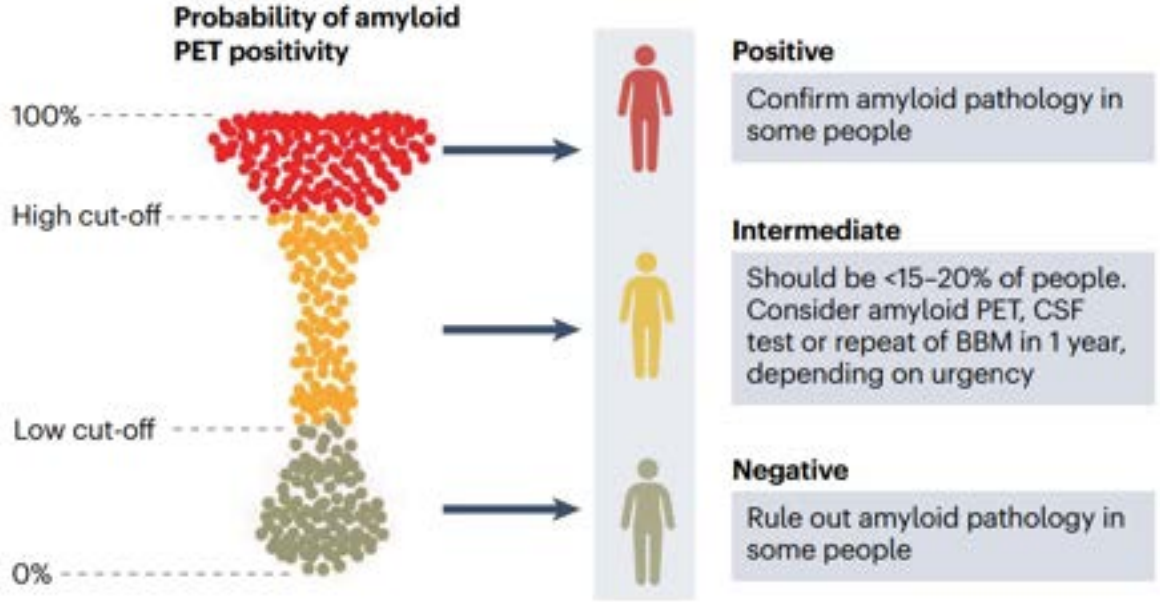
A. **Ensure patient and any caregivers are aware of the diagnosis and the associated prognosis**
B. **Review safety considerations including driving**
C. *Refer him to a Memory Clinic for potential consideration of lecanemab – maybe?*
D. **Review his medications and consider modifying or stopping those with cognitive effects**

Summary

- Alzheimer's disease is a common cause of dementia marked by early development of short term memory impairment
- Primary care providers should be attuned to cognitive changes in their older patients but do not need to systematically perform cognitive testing on asymptomatic older adults
- Blood based biomarkers are an emerging tool in the evaluation for AD however their current role in primary care is limited
- Novel treatments targeting the potential mechanisms underlying AD are now available, although considerable access barriers remain

BBM Performance





- Ideally a test has high sensitivity and specificity
- Some tests use a two cut-off approach
- Given current test performance, a BBM alone would be insufficient to rule out amyloid pathology in a person with higher pre-test probability (e.g. many people of advanced age); use for triage may make sense in higher prevalence settings (e.g. memory clinic)
- Recent guidelines may allow BBMs to be used as substitute for PET or CSF testing in specialty settings if performance is sufficient (must exceed 90% sensitivity and 90% specificity)

Schindler SE, Galasko D, Pereira AC, et al. Acceptable performance of blood biomarker tests of amyloid pathology - recommendations from the Global CEO Initiative on Alzheimer's Disease. *Nat Rev Neurol*. 2024;20(7):426-439. doi:10.1038/s41582-024-00977-5
Palmqvist S, Whitson HE, Allen LA, et al. Alzheimer's Association Clinical Practice Guideline on the use of blood-based biomarkers in the diagnostic workup of suspected Alzheimer's disease within specialized care settings. Alzheimers Dement. 2025;21(7):e70535. doi:10.1002/alz.70535

Session 4 Agenda

Session 4		
2:00 – 2:05 pm	Session Introduction	Christine Palmay
2:05 – 2:25 pm	Clinical Documentation in the Digital Era: Portals, Notes, and AI Tools	Tom Janzen
2:25 – 2:45 pm	From Likes to Loneliness: Understanding Social Media's Psychological Impact	Panel Discussion
2:45 – 3:00 pm	Q&A	

Clinical Documentation in the Digital Era: Portals, Notes, and AI Tools

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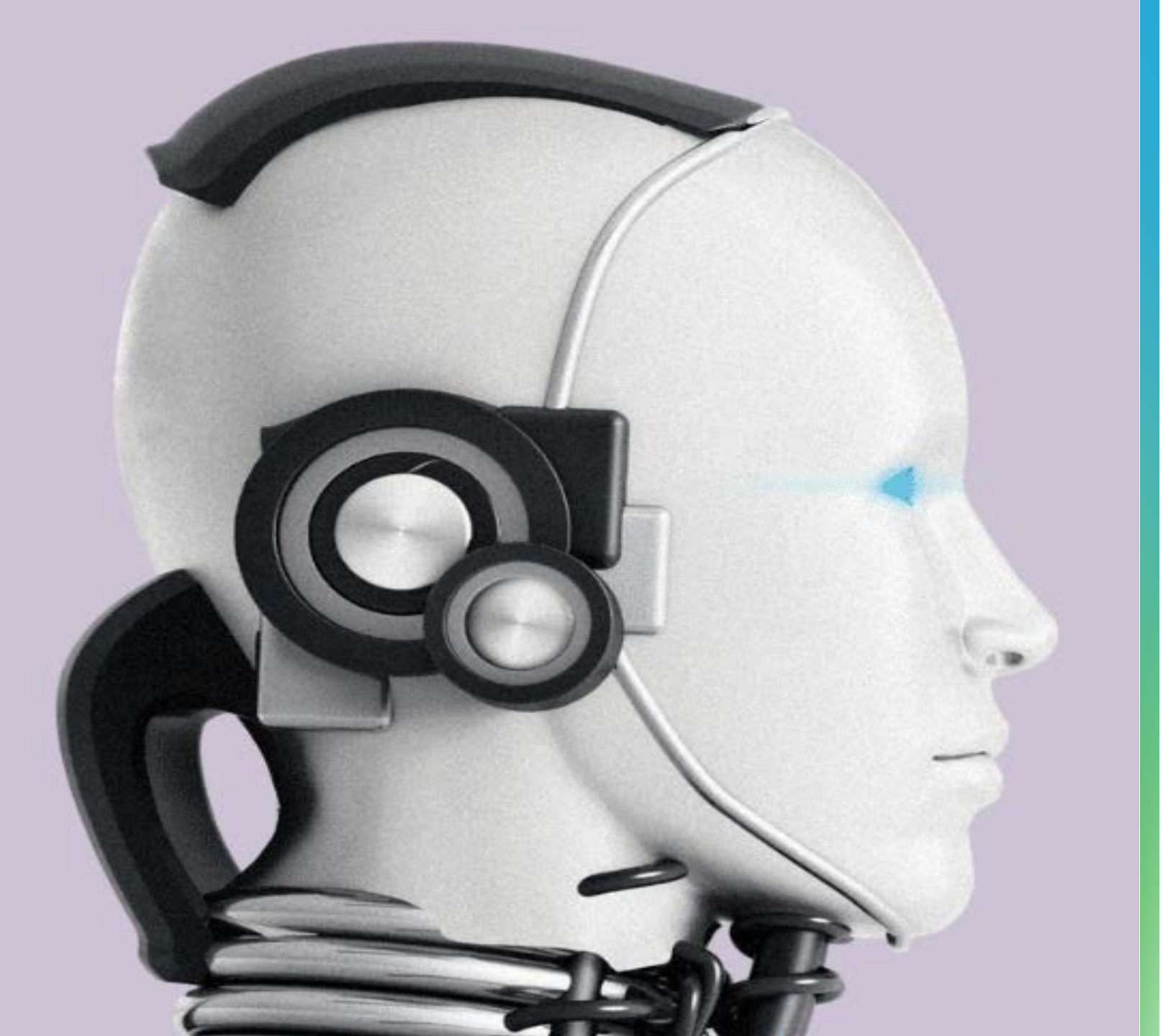
Personal Disclosures

Membership on advisory boards or speakers' bureaus:	AbbVie, Lundbeck
Funded grants, research, or clinical trials:	None
Honoraria:	CCRN, AbbVie, Otsuka, Lundbeck

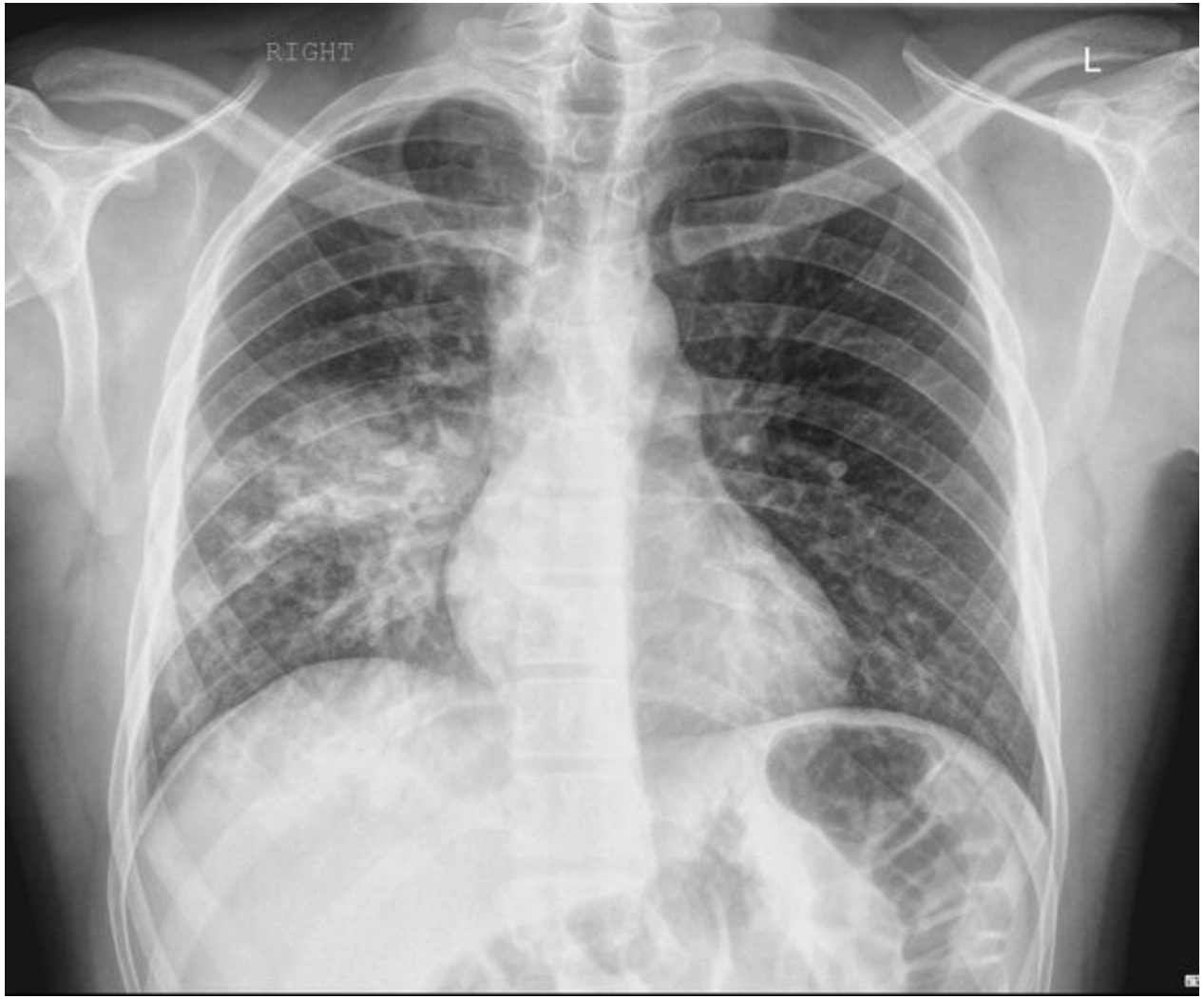


Objectives

-Integrate AI tools in primary care mental health documentation

-Weigh benefits and risks of sharing notes with patients

Open notes: Good or Bad?



Opennotes.org

“By writing notes useful to both patients and ourselves and then inviting them to read what we write, we may help patients address their mental health issues more actively and reduce the stigma they experience.”

—Kahn, et al., JAMA, 2014

Open Notes & AI: The Record Belongs to the Patient

Changing Nature of Clinical Notes

Clinical notes are now shared records patients can access and influence, not just private clinician documents.

Impact of Documentation Practices

Delays and gatekeeping in clinical documentation can affect patient outcomes and cause emotional distress.

Role of AI in Notes

AI tools are transforming note creation and consumption, enabling patient participation but requiring oversight.

Session Goals and Tone

The talk focuses on transparency and accountability, promoting clear, professional, patient-centered documentation.

The Tragic Cost of Hidden Notes

Hidden Notes Discoverable

Digital notes once hidden are now accessible to patients anytime, often without context or support.

Intent Versus Impact

Clinicians write for peers using shorthand, but patients may interpret words as judgment or definitive statements.

Amplified Harm Without Context

Distressing content without explanation can cause emotional injury and deepen patient harm.

Adapting Documentation Practices

Clinicians must document clearly and respectfully, writing as if the patient is in the room.

Should I change the way I document?

- Invite your patient to read their notes
- Promote transparency
- Avoid or define medical jargon
- Use plain language
- Engage patients in the documentation
- Discuss the diagnosis

What the Research Actually Showed

Clinician Concerns

Clinicians worry open notes increase workload, emails, reduce trust, and cause defensive documentation.

Research Findings on Workload

Studies show workload and message volume change less than expected after initial adjustment period.

Patient Benefits

Patients report increased trust, control, and understanding when accessing their medical notes transparently.

Safety and Quality Improvement

Open notes enable patients to catch errors, adding an extra layer of safety and reducing harm.

AI Scribes — Standalone vs Integrated

Standalone vs Integrated AI Scribes

Standalone scribes draft notes from audio only, while integrated scribes use real-time chart data for richer documentation.

Workflow Improvements

Integrated AI scribes enable near-complete notes during patient visits, reducing after-hours documentation and clinician burnout.

Risks and Accountability

AI-generated notes risk over-trust and templated phrasing; clinicians remain responsible for accuracy and appropriateness.

Governance and Ethical Concerns

Integrated AI tools raise data access, patient consent, and auditing challenges requiring stringent oversight.

The Next Frontier — Patient as Co-Author

Simultaneous Visibility

AI generates draft notes during visits for real-time clinician and patient viewing, integrating documentation into the encounter.

Co-Authorship Benefits

Patients can correct errors, verify decisions, and add context, enhancing accuracy and aligning clinical narratives with lived experience.

Role Clarity and Responsibility

Clinicians maintain accountability by curating relevant content and ensuring notes meet professional and legal standards despite patient input.

Operational Workflow

AI drafts structured notes, clinicians review and edit, patients identify discrepancies, creating a shared, finalized medical record.

Closing Challenge

Irreversible Shift

Patient access to health information is now a standard in digital healthcare, changing professional responsibilities.

Communication Consequences

Clinicians using jargon and unclear notes risk patient confusion, anxiety, and eroded trust in care.

Call to Agency

Clinicians should write clear, respectful notes separating hypothesis from diagnosis, ensuring readability and accuracy.

AI and Future Notes

AI can enhance documentation speed and quality, but safeguards are essential for trust and reliability.

Minding Mental Health in Primary Care

Thank you for joining us!