

# Anxiety in Major Depressive Disorder



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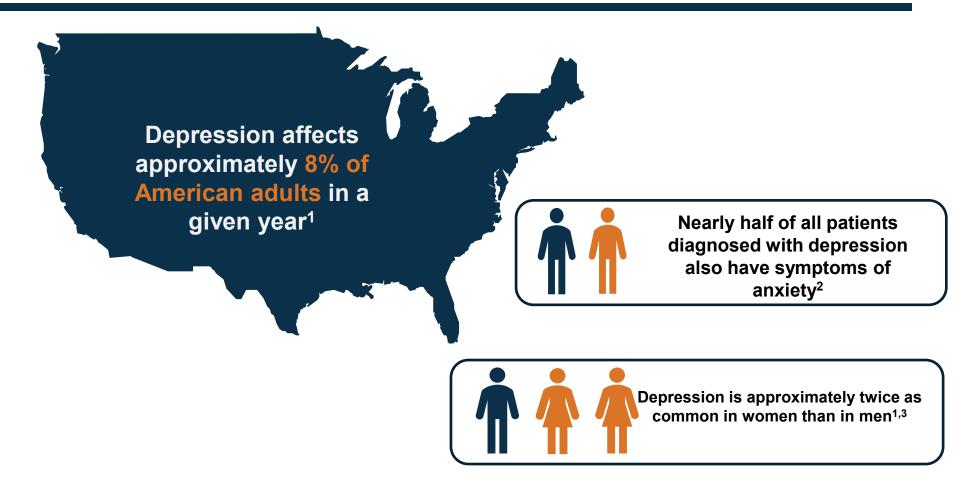
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#### **Objectives**

- Share the prevalence of anxiety in Major Depressive Disorder (MDD)
- Discuss the clinical prognosis of comorbid anxiety with MDD
- Share the diagnostic criteria for anxiety in MDD
- Identify rating scales that assess anxiety and MDD
- Describe the neurotransmitter systems thought to be involved in depression and anxiety



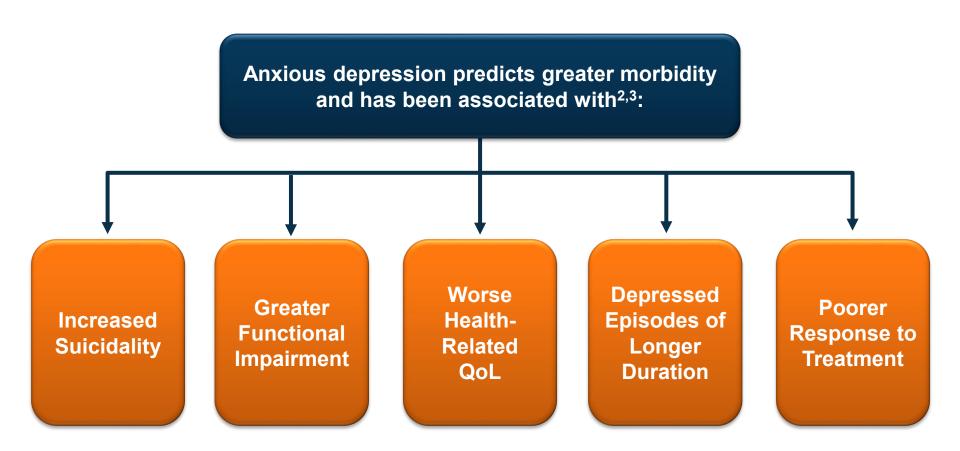
#### **Prevalence of Anxiety in Major Depressive Disorder**



- 1. Brody et al 2018 NCHS Data Brief No 303
- 2. Anxiety and Depression Association of America (ADAA) Facts and Statistics Sheet 2019
- 3. Bogren et al 2018 Eur Arch Psychiatry Clin Neurosci 268: 179-189.



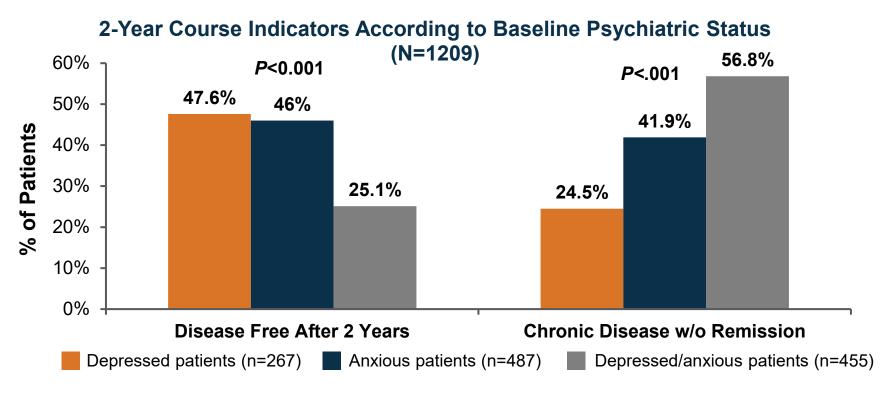
### **Anxious Depression Can Worsen Prognosis**<sup>1,2</sup>



- 1. Trivedi MH, et al. Am J Psychiatry. 2006;163:28-40.
- 2. Fava M, et al. Can J Psychiatry. 2006;51:823-835.
- 3. Zimmerman M, et al. J Clin Psychiatry. 2014;75:601-607.



# Patients With Anxiety and MDD Have Worse Prognosis

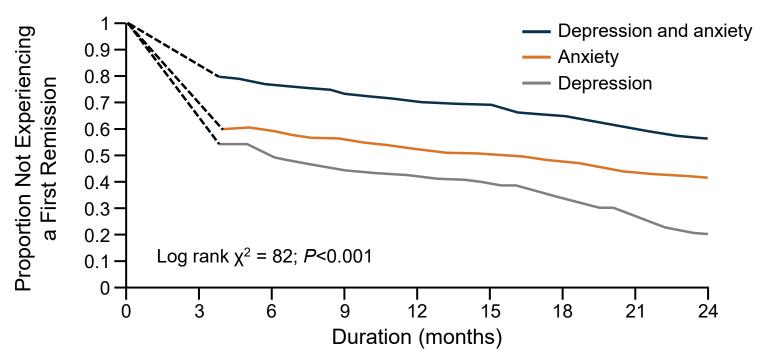


- After 2 years, only 25.1% of patients with comorbid depression/anxiety were disease free, compared with 47.6% and 46%, respectively, of patients with depression only and anxiety only (P<0.001)</li>
- 56.8% of depressed and anxious patients never achieved remission, whereas 24.5% of depressed patients and 41.9% of anxious patients never achieved remission

P value based on chi-square statistics for categorical variables and Mann Whitney nonparametric statistics for continuous variables. Penninx B, et al. J Affect Disord. 2011;133:76-85.



### Time to First Remission Found to Be Longer in Patients With Co-occurring MDD and Anxiety<sup>a</sup>



- Median time to remission in the depression group was 6 months for depression versus
  12 months for comorbid depression and anxiety
- Median time to remission in the anxiety group was 16 months for anxiety and 24 months for comorbid depression and anxiety

Penninx B, et al. J Affect Disord. 2011;133:76-85.



<sup>&</sup>lt;sup>a</sup>Survival curve illustrating time until first remission across baseline psychiatric status (n=1209). The dotted lines (-----) are projected lines since by definition no remission could have occurred within the first 3-month period.

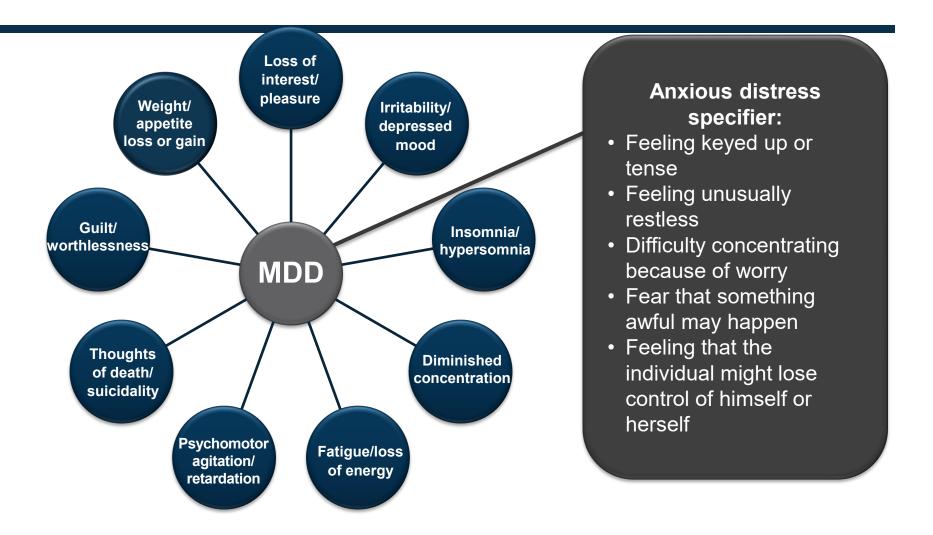
### **Anxiety Distinguisher in DSM-IV and DSM-5**<sup>1,2,3</sup>

DSM-IV (Anxious Depression) <sup>2</sup>	DSM-5 (Anxious Distress) <sup>3</sup>	
HAMD anxiety/somatization factor ≥ 7	MADRS, IDS-SR, HAMD	
Psychic anxiety	Tension – MADRS item 3 (inner tension) ≥ 3	
Somatic anxiety	Restlessness – IDS-SR item 24 (feeling restless) $\geq$ 2	
Gastrointestinal symptoms	Concentration - MADRS item 6 (concentration difficulties) $\geq 3$	
General somatic symptoms	Apprehension - HAM-D item 10 (anxiety – psychic) $\geq 3$	
Hypochondriasis		
Insight		

- 1. Weiller E, et al. ASCP. 2017
- 2. Fava M, et al. *Psychol Med.* 2004;34(7):1299-1308
- 3. Thase M, et al. Neuropscych Dis Tx. 2019;15:37-45.



#### **Anxious Distress Specifier in DSM-5**

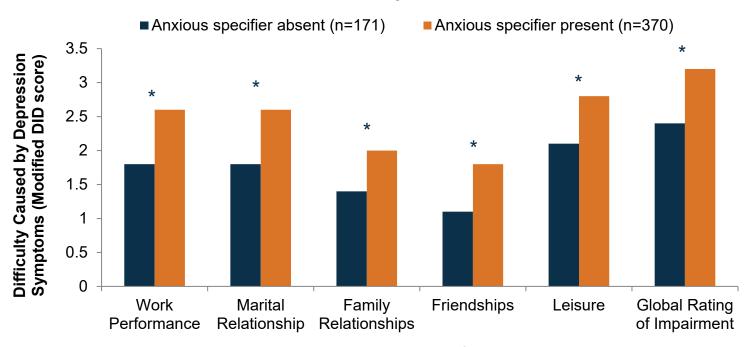


American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.



## **Anxious Distress Decreases Functioning in Patients With MDD**

### Patient-reported Psychosocial Function Impairment Based on *DSM-5* Anxious Distress Specifier



 Patients who met the anxious distress specifier had greater impairment of QoL and greater functional impairment compared with those who did not

\*P<0.001.

CUDOS-A=Clinically Useful Depression Outcome Scale-Anxious Distress Specifier Subscale; DID=Diagnostic Inventory for Depression Zimmerman M, et al. *J Clin Psychiatry*. 2014;75:601-607.



# Somatic Symptoms That Can Occur with Depression and Anxiety<sup>1,2</sup>

- Muscle aches and pains
- Headaches
- Dry mouth
- Choking sensation
- "Churning stomach" sensation
- Nausea and/or vomiting
- Diarrhea
- Palpitations

- Chest pain
- Sudden redness of the skin
- Shortness of breath
- Dizziness
- Blurred vision
- Loss of sex drive
- Difficulties with urination



Tiller JW. Med J Aust. 2013;199(6):S28-S31

https://www.psychguides.com/anxiety.

# How Can Anxiety and Depression Be Measured in Depression Trials

- Clinician rated Depression
  - MADRS<sup>1</sup>
    - Line item 3 (inner tension), Line item 6 (concentration difficulties)<sup>2</sup>
  - HAM-D<sup>3</sup>
    - anxiety/somatization factor 6 items<sup>4</sup>
  - IDS C<sup>5</sup>
  - KSQ<sup>6</sup>
    - anxiety subscale, 17 items
- Clinician rated Anxiety
  - HAM-A<sup>7</sup>
  - GAD-78

- Patient rated Depression
  - IDS-SR<sup>5</sup>
    - Line item 24 (feeling restless)<sup>2</sup>
- Patient rated Anxiety
  - CUXOS9

file://M:/Special%20Projects/anxiety%20resources%202019/Rating%20scales/HAMILTON-ANXIETY.pdf 8. Spitzer RL et al. *Arch Intern Med* 2006;166(10):1092-1097 9. Zimmerman M et al. *J Clin Psych.* 2010; 71:534–542.

MADRS – Montgomery-Asberg Depression Rating Scale; HAMD – Hamilton Rating Scale for Depression; IDS-C – Inventory of Depression Symptoms Clinician Rated; KSQ –Kellner's Symptom Questionnaire; HAM-A - Hamilton Rating Scale for Anxiety; GAD-7 - Generalised Anxiety Disorder Assessment; IDS-SR – IDS Self Rated; CUXOS – Clinically Useful Anxiety Outcome Scale



<sup>1.</sup> Montgomery SA Asberg M *Brit J Psych*. 1979;134 (4):382–89 2. Thase M, et al. *Neuropsychiatr Dis Tx* 2019; 15:37-45 (page 38 and 39). 3. Hamilton M, et al. *J Neurol Neurosurg Psychiatry* 1960;23:56–62 4. Fava M, et al. *Psychol Med* 2004;34(7):1299-1308 5. Rush AJ, et al. *Int J Methods Psychiatr Res* 2000;9:45–59 6. Kellner R, et al.. *J Clin Psych* 1987;48:268-274 7. Hamilton Anxiety Rating Scale (HAM-A). file:///M:/Special%20Projects/anxiety%20resources%202019/Rating%20scales/HAMILTON-

### **Clinician-rated Scale for Anxiety**

- The Hamilton Anxiety Rating Scale, HAM-A, is a widely used and wellvalidated tool for measuring the severity of a patient's anxiety<sup>1,2</sup>
- The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety)<sup>2</sup>
- Each item is scored on a 5-point scale, ranging from 0 (not present) to 4 (severe)<sup>2</sup>
- Total score range is 0 to 56, where<sup>2</sup>:
  - <17 is considered mild severity</p>
  - 18 to 24 is considered mild to moderate severity
  - 25 to 30 is considered moderate to severe severity

Hamilton Anxiety Rating Scale (HAM-A). file:///M:/Special%20Projects/anxiety%20resources%202019/Rating%20scales/HAMILTON-ANXIETY.pdf



Maier W et al. J Affect Disord. 1988;14(1):61-68.

### Patient-rated Outcome Scale for Anxiety

- Clinically Useful Anxiety Outcome Scale (CUXOS)
- 20-Item scale not disorder specific
- Psychic anxiety (6 items), somatic anxiety (14 items)
- Discriminates between different levels of severity
  - Empirically derived cutoff points
  - 91.4% completed in < 2 minutes</p>



## Receptors Thought to Play a Role in Depression and Anxiety

	Depression	Anxiety
D <sub>2</sub> agonism	X <sup>1</sup>	
D <sub>3</sub> agonism	X <sup>2</sup>	
5HT <sub>1A</sub> agonism	X <sup>3,4</sup>	X <sup>4</sup>
5HT <sub>2A</sub> antagonism	X <sup>1</sup>	
5HT <sub>7</sub> antagonism	<b>X</b> <sup>5</sup>	
α <sub>1</sub> antagonism		<b>X</b> <sup>7</sup>
α <sub>2</sub> antagonism	<b>X</b> 4,6	
H₁ antagonism		X <sup>4</sup>

<sup>1.</sup> Chernoloz O et al. *Psychopharmacol (Berl)* 2009;206(2):335-344 2. Leggio GM et al. *Pharmacol Therap* 2016;165:164-177 3. Blier P *Biol Psychiatry* 2003;53:193–203. 4. Correll CU. *Eur Psych* 2010;25:S12-S21 5. Matthys A et al. *Molecul Neurobiol* 2011; 43:228-253 6. Uys M et al. *Front Psychiatry* 2017;8(144):1-23 7. Goddard AW et al. *Depression and Anxiety* 2010;27:339-350



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