

Depression: The Common Cold of Psychiatric Disorders in Primary Care?

Oliver Oyama, Ph.D., ABPP, PA-C, CAQ-PSY
Associate Director, Professor
University of South Florida
Morsani College of Medicine
Family Medicine Residency Program
Clearwater, Florida

Learning Objectives

After the presentation, you should have increased your knowledge and enhanced your competence to ...

1. Describe the DSM-5 diagnostic criteria for Depressive Disorders along with their etiology, epidemiology and differentials.
2. Perform an evidence based assessment of patients presenting with the symptom of depression.
3. Choose among therapeutic options in the treatment of patients who meet criteria for Depressive Disorders and subclinical depressive symptoms.

Disclosures

- No financial relationships to disclose
- Off label use of medications
- Adult psychopathology
- EBM.....as much as possible

Barriers to Care

- Availability
 - Accessibility
 - Affordability
 - Acceptability
-
- Time
 - Knowledge
 - Comfort

DSM-5 Criteria

Major Depressive Disorder

- $\geq 5/9$ symptoms, 2-week duration, change from baseline and at least depressed mood or anhedonia
- “The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.”
- No hypomania or mania
- Not a direct effect of a medical condition or substances
- Cannot be better explained by another psychiatric condition or bereavement

“SIGECAPS”

- S Sleeping problems
- I Loss of Interest in pleasurable activities (Anhedonia)
- G Feelings of Guilt, worthlessness, hopelessness
- E Decreased Energy; fatigue
- C Concentration difficulties
- A Appetite/Weight changes
- P Psychemotor changes
- S Suicidal thoughts

DSM-5 Criteria

Major Depressive Disorder

- $\geq 5/9$ symptoms, 2-week duration, change from baseline and at least depressed mood or anhedonia.
- “The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.”
- No hypomania or mania
- Not a direct effect of a medical condition or substances
- Cannot be better explained by another psychiatric condition or bereavement

Epidemiology of Depressive Disorders

- Prevalence
 - Point: ~7-9%
 - Lifetime: ~16%
 - 4.9 – 8.7% females
 - 3.2 - 4.4% males
 - Unrelated to ethnicity, income, marital status
- Gender differences:
 - Female:Male 1.5 - 3:1
- Age
 - Appears at any age
 - Onset in puberty
 - Peaks in the 20s
 - Late life first onset not uncommon
 - 18-29 yo (x3 higher prev than ≥ 60 yo)
- Familial Pattern (40%, 2-4x risk)
- Comorbidity
 - Medical illness (11-36% I/P)
- Impairment (work, interpersonal)
- Common in primary care (up to 30%)

Etiology of Depressive Disorders

- Environmental
 - Adverse childhood experiences
 - Stressful life events
- Genetic
 - 2-4 x risk to family w/ MDD
 - Higher risk for early onset and recurrent episodes
 - Heritability 40%
 - Personality trait: neuroticism (fear, moody, worry, lonely)
- Physiological
 - Neurotransmitter irregularities
 - Psychoneuroimmunology
 - fMRI, PET

Comorbidities and Differentials

- Medical
 - Autoimmune
 - Endocrine
 - Infectious
 - Neurologic
 - Malignancies
 - CAD
- Psychiatric
 - Adjustment Disorders
 - Bereavement
 - Other Depressive Disorders
 - Psychotic Disorders
 - Anxiety Disorders
- Substances
 - Recreational drugs
 - Iatrogenic

Medications that can cause depressed mood

Antivirals	Efavirenz
Cardiovascular Agents	Clonidine, Guanethidine, Methyldopa, Reserpine
Retinoic Acid Derivatives	Isotretinoin
Antidepressants	
Anticonvulsants	Levetiracetam, Phenobarbital, Primadone, Phenytoin, Tiagabine, Topiramate, Vigabatrin
Antimigraine Agents	Triptans
Antipsychotics	Aripiprazole, Quetiapine
Hormonal Agents	Corticosteroids, OCPs, GnRH agonists, Tamoxifen
Smoking Cessation Agents	Varenicline
Immunologic Agents	Interferon α , Interferon β

Assessment

- Primary Care Assessment Approach
 - DSM-5 clinical criteria
 - Rating scales
 - R/O differentials and comorbidities
 - Safety evaluation

Assessment

- Beck Depression Inventory (BDI II)
- Hamilton Depression Rating Scale (HAM-D)
- Montgomery Asberg Depression Rating Scale (MADRS)
- Hospital Anxiety and Depression Scale (HADS)
- Edinburgh Postnatal Depression Scale (EPDS)
- Geriatric Depression Scale (GDS)
- Patient Health Questionnaire (PHQ-2, PHQ-9)

Hospital Anxiety and Depression Scale (HADS)

Zigmond, A. S., & Snaith, R. P. (1983) Acta Psychiatr Scand, 67, 361-370.

Hospital Anxiety and Depression Scale (HADS)

Tick the box beside the reply that is closest to how you have been feeling in the past week.
Don't take too long over your replies: your immediate is best.

D	A		D	A	
		I feel tense or 'wound up':			I feel as if I am slowed down:
3		Most of the time	3		Nearly all the time
2		A lot of the time	2		Very often
1		From time to time, occasionally	1		Sometimes
0		Not at all	0		Not at all
		I still enjoy the things I used to enjoy:			I get a sort of frightened feeling like 'butterflies' in the stomach:
0		Definitely as much	0		Not at all
1		Not quite so much	1		Occasionally
2		Only a little	2		Quite Often
3		Hardly at all	3		Very Often
		I get a sort of frightened feeling as if something awful is about to happen:			I have lost interest in my appearance:
3		Very definitely and quite badly	3		Definitely
2		Yes, but not too badly	2		I don't take as much care as I should
1		A little, but it doesn't worry me	1		I may not take quite as much care
0		Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			I feel restless as I have to be on the move:
0		As much as I always could	3		Very much indeed
1		Not quite so much now	2		Quite a lot
2		Definitely not so much now	1		Not very much
3		Not at all	0		Not at all
		Worrying thoughts go through my mind:			I look forward with enjoyment to things:
3		A great deal of the time	0		As much as I ever did
2		A lot of the time	1		Rather less than I used to
1		From time to time, but not too often	2		Definitely less than I used to
0		Only occasionally	3		Hardly at all
		I feel cheerful:			I get sudden feelings of panic:
3		Not at all	3		Very often indeed
2		Not often	2		Quite often
1		Sometimes	1		Not very often
0		Most of the time	0		Not at all
		I can sit at ease and feel relaxed:			I can enjoy a good book or radio or TV program:
0		Definitely	0		Often
1		Usually	1		Sometimes
2		Not Often	2		Not often
3		Not at all	3		Very seldom

Please check you have answered all the questions

Scoring:

Total score: Depression (D) _____ Anxiety (A) _____

0-7 = Normal

8-10 = Borderline abnormal (borderline case)

11-21 = Abnormal (case)

Edinburgh Postnatal Depression Scale (EPDS)

Cox. J. L., Holden, J. M., Sagovsky, R. (1987)
Br J Psychiat. 150, 782-786.



Life with a new baby is not
always what you expect.

*Please underline the answer that most
accurately describes your feelings in the last 7 days.*

1. **I have been able to laugh and
see the funny side of things.**

As much as I always could
Not quite so much now
Definitely not so much now
Not at all

2. **I have looked forward with enjoyment
to things.**

As much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all

3. **I have blamed myself unnecessarily
when things went wrong*.**

Yes, most of the time
Yes, some of the time
Not very often
No, never

4. **I have been anxious or worried for
no good reason.**

No, not at all
Hardly ever
Yes, sometimes
Yes, very often

5. **I have felt scared or panicky for no
very good reason*.**

Yes, quite a lot
Yes, sometimes
No, not much
No, not at all

6. **Things have been getting on top of me*.**

Yes, most of the time I haven't been able
to cope at all
Yes, sometimes I haven't been coping as
well as usual
No, most of the time I have coped quite well
No, I have been coping as well as ever

7. **I have been so unhappy that I
have had difficulty sleeping*.**

Yes, most of the time
Yes, sometimes
Not very often
No, not at all

8. **I have felt sad or miserable*.**

Yes, most of the time
Yes, quite often
Not very often
No, not at all

9. **I have been so unhappy that I
have been crying*.**

Yes, most of the time
Yes, quite often
Only occasionally
No, never

10. **The thought of harming myself
has occurred to me*.**

Yes, quite often
Sometimes
Hardly ever
Never

Geriatric Depression Scale (GDS)

Sheikh, J.I., & Yesavage, J.A. (1986). *Clin Gerontologist* 5(1-2): 165-173, 1986.

Geriatric Depression Scale (GDS) Short Form

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life?	Yes	No
2. Have you dropped many of your activities and interests?	Yes	No
3. Do you feel that your life is empty?	Yes	No
4. Do you often get bored?	Yes	No
5. Are you in good spirits most of the time?	Yes	No
6. Are you afraid that something bad is going to happen to you?	Yes	No
7. Do you feel happy most of the time?	Yes	No
8. Do you often feel helpless?	Yes	No
9. Do you prefer to stay at home rather than going out and doing new things?	Yes	No
10. Do you feel you have more problems with memory than most?	Yes	No
11. Do you think it is wonderful to be alive now?	Yes	No
12. Do you feel pretty worthless the way you are now?	Yes	No
13. Do you feel full of energy?	Yes	No
14. Do you feel that your situation is hopeless?	Yes	No
15. Do you think that most people are better off than you are?	Yes	No

Source: Sheikh, J.I., and Yesavage, J.A. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist* 5(1-2): 165-173, 1986.

Patient Health Questionnaire (PHQ -2)

The Patient Health Questionnaire-2 (PHQ-2)

Patient Name _____ Date of Visit _____

Over the past 2 weeks, how often have you been bothered by any of the following problems?

	Not At all	Several Days	More Than Half the Days	Nearly Every Day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3

Patient Health Questionnaire (PHQ-9)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

Name: _____ Date: _____

Over the **last 2 weeks**, how often have you been bothered by any of the following problems? (use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling/staying asleep, sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way.	0	1	2	3

Add Columns: _____ + _____ + _____

TOTAL: _____

If you checked off <u>any</u> problem on this questionnaire so far, how <u>difficult</u> have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all _____
	Somewhat difficult _____
	Very difficult _____
	Extremely difficult _____

Kroenke, K, Spitzer, R. L., & Williams, J. B. (2001).
J Gen Int Med, 16(9), 606-613.

Patient Health Questionnaire (PHQ) Copyright© 1999 Pfizer Inc. All rights reserved.
 Reproduced with permission. PRIME-MD ® is a trademark of Pfizer Inc.

Mood Disorder Questionnaire (MDQ)

Mood Disorder Questionnaire

Patient Name _____ Date of Visit _____

Please answer each question to the best of your ability

1. Has there ever been a period of time when you were not your usual self and...	YES	NO
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	<input type="checkbox"/>	<input type="checkbox"/>
...you were so irritable that you shouted at people or started fights or arguments?	<input type="checkbox"/>	<input type="checkbox"/>
...you felt much more self-confident than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you got much less sleep than usual and found that you didn't really miss it?	<input type="checkbox"/>	<input type="checkbox"/>
...you were more talkative or spoke much faster than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...thoughts raced through your head or you couldn't slow your mind down?	<input type="checkbox"/>	<input type="checkbox"/>
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	<input type="checkbox"/>	<input type="checkbox"/>
...you had more energy than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more active or did many more things than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more social or outgoing than usual, for example, you telephoned friends in the middle of the night?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more interested in sex than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you did things that were unusual for you or that other people might have thought were excessive, foolish, or risky?	<input type="checkbox"/>	<input type="checkbox"/>
...spending money got you or your family in trouble?	<input type="checkbox"/>	<input type="checkbox"/>
2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?	<input type="checkbox"/>	<input type="checkbox"/>
3. How much of a problem did any of these cause you - like being unable to work; having family, money or legal troubles; getting into arguments or fights?		
<input type="checkbox"/> No problems <input type="checkbox"/> Minor problem <input type="checkbox"/> Moderate problem <input type="checkbox"/> Serious problem		

Hirschfeld, R. M. (2002). *J Clin Psychiat*, 4, 9-11.

Assessment

- Primary Care Assessment Approach
 - DSM-5 clinical criteria
 - Rating scales
 - R/O differentials and comorbidities
 - Safety evaluation

Treatment Options

Treatment Options

- Non-Pharmacological (e.g. Cognitive Behavioral Interventions)
- Psychopharmacology
- Complimentary and Alternative therapy
- Electroconvulsive Therapy (ECT)
- Light Therapy
- Repetitive Transcranial Magnetic Stimulation (rTMS)
- Vagus Nerve Stimulation
- Psychosurgery
- Referral

Components of Cognitive Behavioral Interventions

- Identifying maladaptive thoughts, beliefs, expectations, assumptions
 - Challenging these faulty cognitions
 - Identify environmental or external factors/triggers that precipitate, perpetuate depression
 - Learning new habits and behavioral skills
-
- Cognitive
- Behavioral

Treatment Options

- Non-Pharmacological (e.g. Cognitive Behavioral Intervention)
- Psychopharmacology
- Complimentary and Alternative therapy
- Electroconvulsive Therapy (ECT)
- Light Therapy
- Repetitive Transcranial Magnetic Stimulation (rTMS)
- Vagus Nerve Stimulation
- Psychosurgery
- Referral

Treatment Options – 1st Line

SSRI*	Fluoxetine	Prozac, Prozac Weekly, Sarafem
	Paroxetine	Paxil, Paxil XR, Pexeva
	Sertraline	Zoloft
	Citalopram	Celexa
	Escitalopram	Lexapro
SNRI*	Venlafaxine	Effexor, Effexor XR
	Desvenlafaxine	Pristiq, Khedezla
	Duloxetine	Cymbalta
	Levomilnacipran	Fetzima
NDRI*	Bupropion	Wellbutrin, Wellbutrin SR, Wellbutrin XL, Budeprion SR, Budeprion XL, Aplenzin, Forfivo XL
Serotonin antagonist*	Mirtazapine	Remeron, Remeron SolTab
Mixed serotonin activity (5HT modulators)*	Nefazodone	Serzone (not often used as 1 st line)
	Trazodone	Desyrel, Oleptro (not often used as 1 st line)
	Vilazodone	Viibryd
	Vortioxetine	Brintellix renamed: Trintelix

* FDA Approved for Major Depressive Disorder or Depression

Treatment Options – 2nd Line

TCA*	Amitriptyline	Elavil
	Amoxapine	use to be Asendin
	Chlordiazepoxide/Amitriptyline	Limbitrol, Limbitrol DS
	Desipramine	Norpramin
	Doxepin	use to be Sinequan
	Imipramine	Tofranil, Tofranil PM
	Maprotiline	use to be Ludiomil
	Nortriptyline	Pamelor
	Perphenazine/Amitriptyline	use to be Etrafon
	Protriptyline	Vivactil
	Trimipramine	Surmontil
MAOI*	Isocarboxazid	Marplan
	Phenelzine	Nardil
	Selegiline	Emsam (transdermal)
	Tranlycypromine	Parnate

* FDA Approved for Major Depressive Disorder or Depression (w/ or w/o anxiety)

Safety, Tolerability, Adverse Effects

Class	Safety, Tolerability, Adverse Effects
SSRI	<ul style="list-style-type: none"> • QT prolongation (citalopram, escitalopram) • Increased risk of bleeding, glaucoma • Nausea, diarrhea, headache, fatigue, activating • Weight gain, insomnia, sexual SE, activating (fluoxetine)
TCA	<ul style="list-style-type: none"> • Orthostatic hypotension, arrhythmia, seizure • Anticholinergic • Weight gain, sexual SE, somnolence
SNRI	<ul style="list-style-type: none"> • Incr. BP, Incr. QT interval (venlafaxine) • Drug:Drug interactions (less with desvenlafaxine) • Nausea, headache, sweating, tachycardia, urinary retention • Insomnia, sexual SE, activating
Mixed 5-HT	<ul style="list-style-type: none"> • Orthostatic hypotension, liver failure (nefazodone), priapism (trazodone) • Nausea, diarrhea, headache, dizziness, somnolence (trazodone) • Weight gain and sexual SE (vilazodone)
Bupropion	<ul style="list-style-type: none"> • Seizure • Nausea, dry mouth, tremor, insomnia, activating
Mirtazapine	<ul style="list-style-type: none"> • Dry mouth, constipation, weight gain, somnolence
MAOI	<ul style="list-style-type: none"> • Serotonin syndrome, hypertensive crisis, postural hypotension • Sexual dysfunction

Treatment Options - Augmentation

Second Generation Antipsychotic*	Aripiprazole, Brexpiprazole, Olanzapine, Quetiapine	Abilify, Rexulti, Seroquel, Zyprexa
Novel†	Lithium	Lithobid
	Stimulants	Methylphenidate Amphetamine mixes
	Modafinil & Armodafanil	Provigil, Nuvigil
	Triiodothyronine, Liothyronine (T3)	Cytomel, Triostat
	Anticonvulsants	Carbamazepine, Lamotrigine, Valproate
Other†	St. John's Wort	Drug interactions , photosensitivity
	S-adenosylmethionine (SAM-e)	Some evidence
	L-methylfolate	Some evidence
	Omega-3 fatty acid	Prolongs bleeding time
	Celecoxib	Small – Mod effects, w/ & w/o other Rx
Newest (FDA approved)	Esketamine	Spravato
	Brexanolone	Zulresso

* FDA Approved for the adjunctive treatment or acute treatment resistant Major Depressive Disorder

† Used but not FDA approved

2nd Gen Antipsychotics

Table 3. Some Relative Adverse Effects of Second-Generation Antipsychotics

Drug	Diabetes	Weight Gain	Extrapyramidal Symptoms	QTc Interval Prolongation	Elevated Prolactin
Aripiprazole	+/-	+	++	+/-	-
Asenapine	+	++	++	+	++
Brexipiprazole*	+	++	+	-	+/-
Cariprazine*	+/-	+	+++	-	-
Clozapine	++++	++++	+/-	+	+/-
Iloperidone	++	++	+/-	++	+/-
Lurasidone	+/-	+/-	++	+/-	+/-
Olanzapine	++++	++++	+	+	+
Paliperidone	++	+++	+++	+	+++
Quetiapine	++	+++	+/-	+	+/-
Risperidone	++	+++	+++	+	+++
Ziprasidone	+/-	+/-	+/-	++	+

*Limited experience

Treatment Options - Augmentation

Second Generation Antipsychotic*	Aripiprazole, Brexpiprazole, Olanzapine, Quetiapine	Abilify, Rexulti, Seroquel, Zyprexa
Novel†	Lithium	Lithobid
	Stimulants	Methylphenidate Amphetamine mixes
	Modafinil & Armodafanil	Provigil, Nuvigil
	Triiodothyronine, Liothyronine (T3)	Cytomel, Triostat
	Anticonvulsants	Carbamazepine, Lamotrigine, Valproate
Other†	St. John's Wort	Drug interactions , photosensitivity
	S-adenosylmethionine (SAM-e)	Some evidence
	L-methylfolate	Some evidence
	Omega-3 fatty acid	Prolongs bleeding time
	Celecoxib	Small – Mod effects, w/ & w/o other Rx
Newest (FDA approved)	Esketamine	Spravato
	Brexanolone	Zulresso

* FDA Approved for the adjunctive treatment or acute treatment resistant Major Depressive Disorder

† Used but not FDA approved

Esketamine (Spravato)

- Nasal Spray
- Combination w/ antidepressant
- Treatment resistant depression
- 2x weekly in first month, every 1-2 weeks until remission
- “may result in significantly rapid improvement in depressive symptoms”
- Risk Evaluation and Mitigation Strategy (REMS)

\$590 - \$885
for clinics



Canuso, C. M., et al. (2018). *Am J Psychiat*, 175(7), 620-630.
Daly, E. J., et al. (2018). *JAMA Psychiat*, 75(2), 139-148.

Brexanolone (Zulresso)

- “Post-Partum Depression”
- 1:9 w/in 12 mo, 1:500-1000 psychotic features
- Indication: Moderate-Severe Post-Partum Depression
- Schedule IV
- 60-hour continuous IV infusion
- Reduction in symptoms as early as 24 hours
- Risk Evaluation and Mitigation Strategy (REMS)

\$20,000 -
\$35,000 +
*for full course
of treatment*



Selection of an Initial Antidepressant

- Consider safety
- Consider efficacy
- Consider cost
- Consider previous experience, patient preference
- Consider side effects/tolerability - tailor to patient
 - fluoxetine, bupropion: stimulating
 - SNRIs: avoid in HTN
 - mirtazapine: most sedating, wt gain
 - citalopram/escitalopram: Incr QT
 - citalopram: decr Rx-Rx SE
 - TCAs: avoid in HTN, ↑ age, suicidal, ortho hypotension, seizure, arrhythmia
 - bupropion: least sexual SEs, less wt gain
 - bupropion, TCA: lowers seizure threshold
 - SSRIs: insomnia, sexual SE, wt gain

Suicidality - All Antidepressants

Black Boxed Warning: Increased risk of suicidal thinking or behavior in children, adolescents, and adults

The screenshot shows the FDA website's 'News & Events' section. The top navigation bar includes the FDA logo, the text 'U.S. Food and Drug Administration Protecting and Promoting Your Health', and a search bar. Below the navigation bar are several menu items: Home, Food, Drugs, Medical Devices, Radiation-Emitting Products, Vaccines, Blood & Biologics, Animal & Veterinary, Cosmetics, and Tobacco Products. The main content area is titled 'News & Events' and contains two news release entries. The first entry, dated October 13, 2004, is titled 'FDA Launches a Multi-Pronged Strategy to Strengthen Safeguards for Children Treated With Antidepressant Medications'. The second entry, dated May 2, 2007, is titled 'FDA Proposes New Warnings About Suicidal Thinking, Behavior in Young Adults Who Take Antidepressant Medications'. Both entries include contact information for media and consumer inquiries.

FDA NEWS RELEASE
FOR IMMEDIATE RELEASE
P04-97
October 13, 2004

Media Inquiries: 301-827-6242
Consumer Inquiries: 888-INFO-FDA

FDA Launches a Multi-Pronged Strategy to Strengthen Safeguards for Children Treated With Antidepressant Medications

The Food and Drug Administration (FDA) today issued a Public Health Advisory announcing a multi-pronged strategy to warn the public about the increased risk of suicidal thoughts and behavior ("suicidality") in children and adolescents being treated with antidepressant medications.

The agency is directing manufacturers to add a "black box" warning to the health professional labeling of all antidepressant medications to describe this risk and emphasize the need for close monitoring of patients started on these medications. FDA has also determined that a Patient Medication Guide (MedGuide), which will be given to patients receiving the drugs to advise them of the risk and precautions that can be taken, is appropriate, and is in the process of developing one.

FDA NEWS RELEASE
FOR IMMEDIATE RELEASE
P07-77
May 2, 2007

Media Inquiries:
Sandy Walsh, 301-827-6242
Consumer Inquiries:
888-INFO-FDA

FDA Proposes New Warnings About Suicidal Thinking, Behavior in Young Adults Who Take Antidepressant Medications

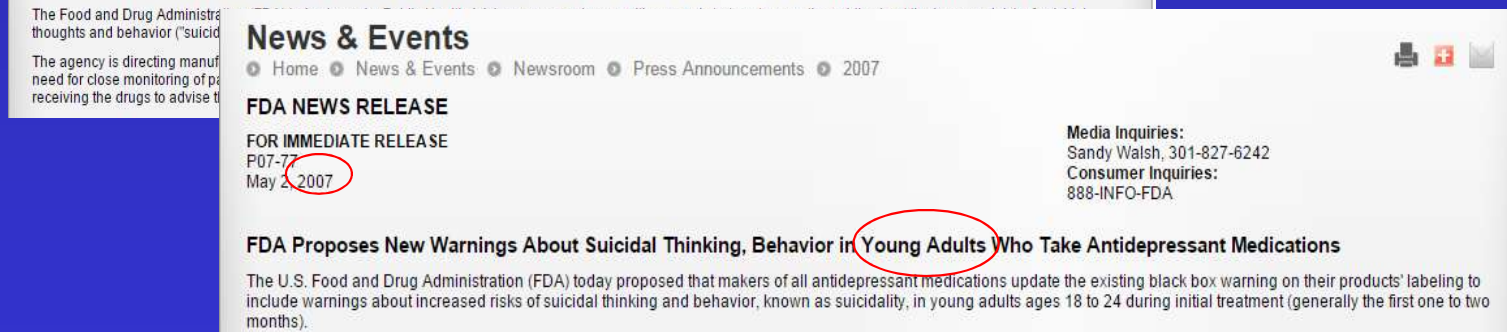
The U.S. Food and Drug Administration (FDA) today proposed that makers of all antidepressant medications update the existing black box warning on their products' labeling to include warnings about increased risks of suicidal thinking and behavior, known as suicidality, in young adults ages 18 to 24 during initial treatment (generally the first one to two months).

Suicidality - All Antidepressants

Black Boxed Warning: Increased risk of suicidal thinking or behavior in children, adolescents, and adults



A screenshot of the FDA website's News & Events section from 2004. The header includes the FDA logo, the text "U.S. Food and Drug Administration Protecting and Promoting Your Health", and navigation links for "A to Z Index", "Follow FDA", and "En Español". A search bar with a "SEARCH" button is also present. Below the header is a navigation menu with categories: Home, Food, Drugs, Medical Devices, Radiation-Emitting Products, Vaccines, Blood & Biologics, Animal & Veterinary, Cosmetics, and Tobacco Products. The main content area is titled "News & Events" and includes a breadcrumb trail: Home > News & Events > Newsroom > Press Announcements > 2004. The news item is labeled "FDA NEWS RELEASE" and "FOR IMMEDIATE RELEASE" with ID "P04-97" and date "October 15, 2004". Contact information for media and consumer inquiries is provided. The headline is "FDA Launches a Multi-Pronged Strategy to Strengthen Safeguards for Children Treated With Antidepressant Medications".



A screenshot of the FDA website's News & Events section from 2007. The header is similar to the 2004 version. The main content area is titled "News & Events" and includes a breadcrumb trail: Home > News & Events > Newsroom > Press Announcements > 2007. The news item is labeled "FDA NEWS RELEASE" and "FOR IMMEDIATE RELEASE" with ID "P07-77" and date "May 2, 2007". Contact information for media and consumer inquiries is provided. The headline is "FDA Proposes New Warnings About Suicidal Thinking, Behavior in Young Adults Who Take Antidepressant Medications". The first sentence of the text below the headline reads: "The U.S. Food and Drug Administration (FDA) today proposed that makers of all antidepressant medications update the existing black box warning on their products' labeling to include warnings about increased risks of suicidal thinking and behavior, known as suicidality, in young adults ages 18 to 24 during initial treatment (generally the first one to two months)." Red circles highlight the date "May 2, 2007" and the phrase "Young Adults Who Take Antidepressant Medications" in the headline.

Selection of an Initial Antidepressant

- ~~Consider safety~~
- Consider efficacy
- Consider cost
- Consider previous experience, patient preference
- Consider side effects/tolerability - tailor to patient
 - fluoxetine, bupropion: stimulating
 - SNRIs: avoid in HTN
 - mirtazapine: most sedating, wt gain
 - citalopram/escitalopram: Incr QT
 - citalopram: decr Rx-Rx SE
 - TCAs: avoid in HTN, ↑ age, suicidal, ortho hypotension, seizure, arrhythmia
 - bupropion: least sexual SEs, less wt gain
 - bupropion, TCA: lowers seizure threshold
 - SSRIs: insomnia, sexual SE, wt gain

Selection of an Initial Antidepressant

- ~~Consider safety~~
- ~~Consider efficacy~~
- Consider cost
- Consider previous experience, patient preference
- Consider side effects/tolerability - tailor to patient
 - fluoxetine, bupropion: stimulating
 - SNRIs: avoid in HTN
 - mirtazapine: most sedating, wt gain
 - citalopram/escitalopram: Incr QT
 - citalopram: decr Rx-Rx SE
 - TCAs: avoid in HTN, ↑ age, suicidal, ortho hypotension, seizure, arrhythmia
 - bupropion: least sexual SEs, less wt gain
 - bupropion, TCA: lowers seizure threshold
 - SSRIs: insomnia, sexual SE, wt gain

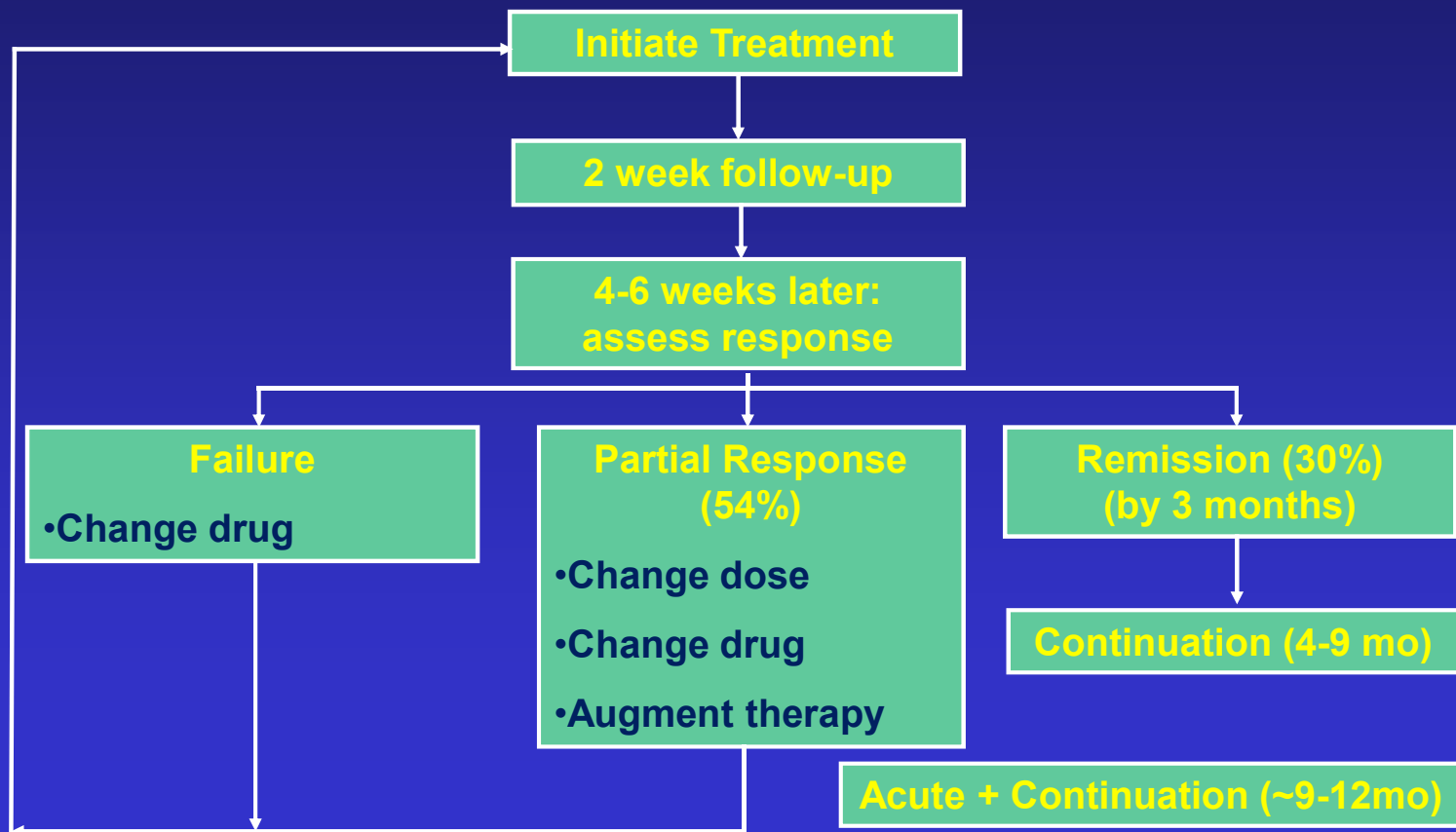
Selection of an Initial Antidepressant

- ~~Consider safety~~
- ~~Consider efficacy~~
- ~~Consider cost~~
- Consider previous experience, patient preference
- Consider side effects/tolerability - tailor to patient
 - fluoxetine, bupropion: stimulating
 - SNRIs: avoid in HTN
 - mirtazapine: most sedating, wt gain
 - citalopram/escitalopram: Incr QT
 - citalopram: decr Rx-Rx SE
 - TCAs: avoid in HTN, ↑ age, suicidal, ortho hypotension, seizure, arrhythmia
 - bupropion: least sexual SEs, less wt gain
 - bupropion, TCA: lowers seizure threshold
 - SSRIs: insomnia, sexual SE, wt gain

Selection of an Initial Antidepressant

- ~~Consider safety~~
- ~~Consider efficacy~~
- ~~Consider cost~~
- ~~Consider previous experience, patient preference~~
- Consider side effects/tolerability - tailor to patient
 - fluoxetine, bupropion: stimulating
 - SNRIs: avoid in HTN
 - mirtazapine: most sedating, wt gain
 - citalopram/escitalopram: Incr QT
 - citalopram: decr Rx-Rx SE
 - TCAs: avoid in HTN, ↑ age, suicidal, ortho hypotension, seizure, arrhythmia
 - bupropion: least sexual SEs, less wt gain
 - bupropion, TCA: lowers seizure threshold
 - SSRIs: insomnia, sexual SE, wt gain

Treatment Algorithm



Psychopharmacology Tips and tricks

- Frequency of follow-up
- Switching antidepressants
- Dual Rx therapy
- Length of treatment
- Serotonin Syndrome
- Discontinuing treatment
- Treatment resistance
- MDD recurrence

	Serotonin Syndrome	Neuroleptic Malignant Syndrome
Inciting Agent	Serotonin Agonist SSRI anticonvulsants odansetron SNRI cyclobenzaprine trazodone TCA dextromethorphan tramadol buspirone linezolid others mirtazapine meperidine (MAOIs)	Dopamine antagonists (or w/drawal of dopamine agonist) antipsychotics bromocriptine (ag) chlorpromazine pramiprexole (ag) metoclopramide ropinirole (ag)
Onset	Abrupt (hours)	Days to weeks
Neuromuscular Sx	Hyperreflexia, tremor, myoclonus	Bradyreflexia, led-pipe rigidity
GI symptoms	Nausea, vomiting, diarrhea	Not common
Pupils	Dilated	Normal
Treatment	BZD, cyproheptadine	bromocriptine
Course	Rapid (w/in 24 hours) *fluoxetine – longer 2° > t(1/2)	Days to weeks

Psychopharmacology Tips and tricks

- Frequency of follow-up
- Switching antidepressants
- Dual Rx therapy
- Length of treatment
- Serotonin Syndrome
- Discontinuing treatment
- Treatment resistance
- MDD recurrence

Serotonin Discontinuation Syndrome - FINISH

Flu-like symptoms

Insomnia

Nausea

Imbalance

Sensory disturbances

Hyperarousal

Psychopharmacology Tips and tricks

- Frequency of follow-up
- Switching antidepressants
- Dual Rx therapy
- Length of treatment
- Serotonin Syndrome
- Discontinuing treatment
- Treatment resistance
- MDD recurrence

Fava, M., et. al. (2006). *Am J Psych*, 163(7), 1161-1172.

Shelton, R. C., Osuntokun, O., Heinloth, A. N., & Corya, S. A. (2010). *CNS Drugs*, 24(2), 131-161.

Pseudo-resistance (insufficient treatment)

- Misdiagnosis
- Not addressing comorbidities
- Type of treatment is wrong or not optimal
- Dose is wrong
- Treatment delivery issues
- Non-adherence

Psychopharmacology Tips and tricks

- Frequency of follow-up
- Switching antidepressants
- Dual Rx therapy
- Length of treatment
- Serotonin Syndrome
- Discontinuing treatment
- Treatment resistance →
- MDD recurrence

STAR*D

- ~37% remission with 1st Rx
- ~33% did not reach remission even after 4 sequential Rx trials

Fava, M., et. al. (2006). *Am J Psych*, 163(7), 1161-1172.

Shelton, R. C., Osuntokun, O., Heinloth, A. N., & Corya, S. A. (2010). *CNS Drugs*, 24(2), 131-161.

Treatment Resistance

- Risk Factors

- Comorbid general medical disorders
- Chronic pain
- Medications (sub therapeutic 20%)
- Comorbid psychiatric disorders
- Severe intensity of depressive symptoms
- Suicidal thought and behavior
- Adverse life events
- Early age of onset
- Longer or recurrent depressive episodes
- Low SES
- Enzyme inducers, rapid metabolizers?
- Increased inflammatory markers (CRP)

- Responses

- Manage medical disorders
- Manage chronic pain
- Adherence (40%), AEs (20-30%)?
- Diagnose and treat comorbidities
- Change/augment treatment
- Assess and treat/refer appropriately
- Stay the course
- Children/adolescents are referred
- Change/augment treatment
- CBI (for all of these risk factors)
- Pharmacokinetics, Laboratory testing
- 2nd line tx w/ anti-inflammatories (~EBM)
- Refer to psychiatry/psychology for any of the above

Pharmacological Options for Treatment Resistance*

- T3 hormone
- Anticonvulsants
- Stimulants
- Lithium

* None of these drugs are FDA approved for MDD or "Depression".

Psychopharmacology Tips and tricks

- Frequency of follow-up
- Switching antidepressants
- Dual Rx therapy
- Length of treatment
- Serotonin Syndrome
- Discontinuing treatment
- Treatment resistance
- MDD recurrence

Fava, M., et. al. (2006). *Am J Psych*, 163(7), 1161-1172.

Shelton, R. C., Osuntokun, O., Heinloth, A. N., & Corya, S. A. (2010). *CNS Drugs*, 24(2), 131-161.

Treatment Options

- Non-Pharmacological (e.g. Cognitive Behavioral Intervention)
- Psychopharmacology
- Complimentary and Alternative therapy
- Electroconvulsive Therapy (ECT)
- Light Therapy
- Repetitive Transcranial Magnetic Stimulation (rTMS)
- Vagus Nerve Stimulation
- Psychosurgery
- Referral

Treating Major Depressive Disorder (APA Guidelines)

Managing Depression

- Therapeutic alliance
- Psychiatric Assessment
- Evaluate safety
- Appropriate treatment setting
- Functional impairments & QOL
- Coordinate with other clinicians
- Monitor psychiatric status
- Integrate measures
- Enhance treatment adherence
- Provide education to Pt/family

Treating Major Depressive Disorder (APA Guidelines)

Acute Phase Treatment

- Initial treatment choice →
- Evaluating response
- Addressing inadequate response

Continuation Phase

- Reduce relapse

Maintenance Phase

- Monitoring

Discontinuation of Treatment

- Monitoring

- History of illness
- Type & severity of symptoms
- Co-occurring illnesses/conditions/situations
- Response to prior treatments
- Patient preference
- Availability of mental health resources

A Practical Management Strategy for Depressive Disorders in Primary Care

- Screen all patients at annual exam or if symptomatic (PHQ9)
- Consider differentials and comorbidities
- Determine acuity of impairment or distress
- Assess previous therapies
- Refer for, or provide CB interventions yourself
- Consider and prescribe psychotropics responsibly
- Develop a depression care/follow-up process
- Refer when appropriate

Time-Limited Appointments (15-20 min)

- Pre work - PHQ9
- Review depression symptoms, assess/document suicidality
- Brief ROS including substance use
- Review adherence & ask about side effects
- Use evidence based treatments (CBI & Rx)
- Limit changes to one at a time
- Verbally encourage pt & support others involved in pt's care

A Practical Management Strategy for Depressive Disorders in Primary Care

- Screen all patients at annual exam or if symptomatic (PHQ9)
- Consider differentials and comorbidities
- Determine acuity of impairment or distress
- Assess previous therapies
- Refer for, or provide CB interventions yourself
- Consider and prescribe psychotropics responsibly
- Develop a depression care/follow-up process
- Refer when appropriate

Thanks for Listening

Oliver.Oyama@BayCare.org

References

1. American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. American Psychiatric Pub.
2. American Psychiatric Association. (2015). Treating major depressive disorder: a quick reference guide. 2010.
3. Berber, M. J. (1998). FINISH: remembering the discontinuation syndrome. Flu-like symptoms, Insomnia, Nausea, Imbalance, Sensory disturbances, and Hyperarousal (anxiety/agitation). *J Clin Psychiat*, 59(5), 255.
4. Canuso, C. M., Singh, J. B., Fedgchin, M., Alphas, L., Lane, R., Lim, P., ... & Drevets, W. C. (2018). Efficacy and safety of intranasal esketamine for the rapid reduction of symptoms of depression and suicidality in patients at imminent risk for suicide: results of a double-blind, randomized, placebo-controlled study. *Am J Psychiat*, 175(7), 620-630.
5. Colorafi, K., Vanselow, J., & Nelson, T. (2017). Treating Anxiety and Depression in Primary Care: Reducing Barriers to Access. *Family Pract Manag*, 24(4), 11-16.
6. Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiat*, 150(6), 782-786.
7. Daly, E. J., Singh, J. B., Fedgchin, M., Cooper, K., Lim, P., Shelton, R. C., ... & Drevets, W. C. (2018). Efficacy and safety of intranasal esketamine adjunctive to oral antidepressant therapy in treatment-resistant depression: a randomized clinical trial. *JAMA Psychiat*, 75(2), 139-148.
8. Drugs for psychotic disorders (2016) *The Medical Letter*. 58(1510), 163.
9. Fava, M., et al. (2006). A comparison of mirtazapine and nortriptyline following two consecutive failed medication treatments for depressed outpatients: a STAR* D report. *Am J Psychiat*, 163(7), 1161-1172.
10. Gelenberg, A. J., et al. (2010). Practice guideline for the treatment of patients with major depressive disorder third edition. *Am J Psychiat*, 167(10), 1.
11. Hirschfeld, R. M. (2002). The Mood Disorder Questionnaire: a simple, patient-rated screening instrument for bipolar disorder. *J Clin Psychiat*, 4:9-11.
12. Kessler, R.C., et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psych*, 62(6), 593-602.
13. Khouzam, H. R. (2007). *Consultant*, 47(8), 757-757.
14. Kroenke, K., Spitzer, R. L., & Williams, J.B. (2001). The PHQ-9: validity of a brief depression severity measure. *J Gen Int Med*, 16(9), 606-613.
15. Kroenke, K., Spitzer, R. L., & Williams, J. B. (2003). The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. *Med Care*, 41, 1284-92.

References

16. Lynch, T., & Price, A. (2007). The effect of cytochrome P450 metabolism on drug response, interactions, and adverse effects. *Am Fam Physician*, 76, 391-396.
17. Martin, L. A., Neighbors, H. W., & Griffith, D. M. (2013). The experience of symptoms of depression in men vs women: analysis of the National Comorbidity Survey Replication. *JAMA psychiatry*, 70(10), 1100-1106.
18. Meltzer-Brody, S., Colquhoun, H., Riesenber, R., Epperson, C. N., Deligiannidis, K. M., Rubinow, D. R., ... & Jonas, J. (2018). Brexanolone injection in post-partum depression: two multicentre, double-blind, randomised, placebo-controlled, phase 3 trials. *Lancet*, 392(10152), 1058-1070.
19. National Institute for Health and Care Excellence. (2009). *Depression in adults: recognition and management* (NICE Clinical Guideline CG90, Updated April 2018). Retrieved from <https://www.nice.org.uk/guidance/cg90>
20. Qaseem, A., Barry, M. J., & Kansagara, D. (2016). Nonpharmacologic versus pharmacologic treatment of adult patients with major depressive disorder: a clinical practice guideline from the American College of Physicians. *Ann Intern Med*, 164(5), 350-359.
21. Sheikh, J. I., & Yesavage, J. A. (1986). Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist*, 5, 165-173.
22. Shelton, R. C., Osuntokun, O., Heinloth, A. N., & Corya, S. A. (2010). Therapeutic options for treatment-resistant depression. *CNS Drugs*, 24(2), 131-161.
23. Singh, T., & Williams, K. (2006). Atypical depression. *Psychiatry* (Edgmont), 3(4), 33.
24. Siu, A. L., Bibbins-Domingo, K., Grossman, D. C., Baumann, L. C., Davidson, K. W., Ebell, M., ... & Krist, A. H. (2016). Screening for depression in adults: US Preventive Services Task Force recommendation statement. *JAMA*, 315(4), 380-387.
25. Strakowski, S., & Nelson, E. (2015). *Major depressive disorder*. Oxford University Press.
26. Suehs BT, et al. (2008) *Texas Medication Algorithm Project Procedural Manual: Major Depressive Disorder Algorithms*. The Texas Department of State Health Services.
27. Thase, M. M., & Connolly, K. R. M. (2015). *Unipolar depression in adults: Treatment of resistant depression*. Waltham, MA: Wolters Kluwer Health.
28. Tisdale, J. E., & Miller, D. A. (2010). *Drug-induced diseases: prevention, detection, and management*. ASHP.
29. Trangle M, Gursky J, Haight R, Hardwig J, Hinnenkamp T, Kessler D, Mack N, Myszkowski M. Institute for Clinical Systems Improvement. *Adult Depression in Primary Care*. Updated March 2016.
30. VA/DoD Clinical Practice Guidelines (2016). *Management of Major Depressive Disorder*. Retrieved from <https://www.healthquality.va.gov/guidelines/MH/mdd/>
31. Zigmond, A. S., & Snaith, R. P. The hospital anxiety and depression scale (1983) *Acta Psychiatr. Scand*, 67, 361-370.