

# Managing mood disorders in the living donor

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**14th Annual Living Donation Conference**

Presented by the American Foundation for Donation and Transplantation

# Disclosures

- With regards to the following presentation, I have no relevant financial disclosures.



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# Objectives

## Understand

the prevalence and risk factors for mood disorders in the donor population, including adjustment disorder, depression, and bipolar disorder.

## Learn about

the potential impacts of mood disorders on both the physical and mental health of donors, as well as on post donation outcomes.

## Learn

how to effectively identify and screen for mood disorders in the donor population, and how to appropriately refer donors for further assessment and treatment as needed.

## Gain

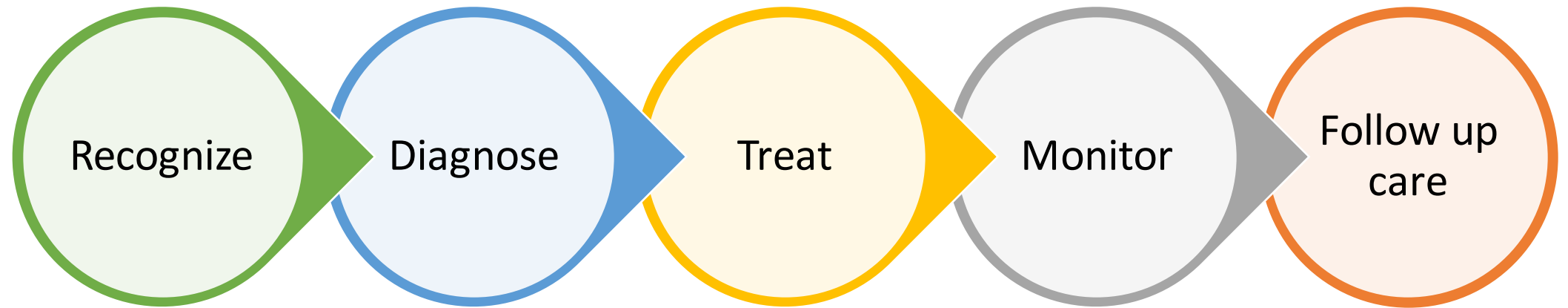
an understanding of the various treatment options available for mood disorders in the donor population, including psychotherapy and medication, and the benefits and limitations of each.



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# Management of mood disorders: Road Map



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# Case

- 36 year old married woman, mother of 3 children under the age of 15 now 5 months post donation of kidney to her husband. Reports difficulty with sleep, complains of numbness and tingling and at times sharp pain at the surgical site. She also endorses being tearful with worries about finances.



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# Mood disorders commonly encountered

- Adjustment disorder
- Major depressive disorder
- Persistent depressive disorder
- Bipolar Disorder
- Demoralization
- Substance induced mood disorder



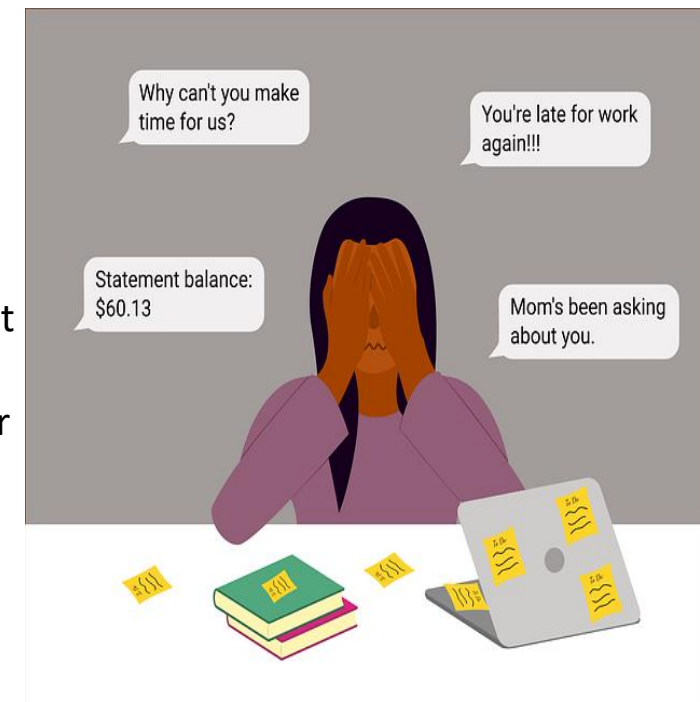
# Depressive Syndromes

## Major Depressive Episode

- 5 + symptoms x 2 weeks:
  - depressed mood
  - ↓ interest or pleasure
  - appetite/ weight changes
  - insomnia or hypersomnia
  - psychomotor agitation or retardation
  - fatigue or loss of energy
  - worthlessness or guilt
  - ↓ concentration/decision-making
  - thoughts of death, SI or SA
- Impairment
- Not due to effects of substance or illness

## Adjustment Disorder

- Symptoms within 3 months of the stressor onset
- Marked distress in excess of expected and significant impairment in functioning
- Does not meet the criteria for another Axis I disorder
- Not bereavement
- Sxs do not persist for > 6 months after stressor termination
- Specifiers:
  - w/ depressed mood
  - w/ anxiety
  - w/mixed anxiety & depressed mood



American Psychiatric Association, 2013, DSM 5



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# Mood disorders in the donor population

- Prevalence rate of adjustment disorder ranges from 0.4% to 16% across three studies
- One study reported a decrease in prevalence of adjustment disorder from 16% at 4 months post-donation to 2% at 12 months post-donation
- Two studies reported sleep difficulties in donors: one found that 0.25% of donors suffered from insomnia post-donation , while the other found that 25.3% of donors had loss of sleep post-donation
- the prevalence of depression ranged from 0 to 46.9%
- For kidney, prevalence rates of depression were 2–46.9%
- Liver donors and 0–34% respectively.
- One study reported low prevalence rates of suicide (0.25%), suicide attempt (0.25%), and bipolar disorder (0.25%) in donors
- Body image concerns were found in 19% of donors, which were associated with perceived pressure to donate and pre-donation body concerns



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Ong JQL, Lim LJJ, Ho RCM, Ho CSH. Depression, anxiety, and associated psychological outcomes in living organ transplant donors: A systematic review. *Gen Hosp Psychiatry*. 2021 May-Jun;70:51-75. doi: 10.1016/j.genhosppsych.2021.03.002. Epub 2021 Mar 6. PMID: 33721612.



# Mood disorders in the donor population

- A study of quality of life among living donors showed that the incidence of depression and anxiety among living donors post-donation is comparable to that of age-matched and sex-matched peers.
- However increased stressors, more complicated recovery, and ambivalence to donation increase the risk of these conditions

Jowsey SG, Jacobs C, Gross CR, et al. Emotional well being of living kidney donors: findings from the RELIVE Study. Am J Transplant 2014; 14:2535–2544.



# Case

- 36 year old married woman, mother of 3 children under the age of 15 now 5 months post donation of kidney to her husband. Reports difficulty with sleep, complains of numbness and tingling and at times sharp pain at the surgical site. She also endorses being tearful with worries about finances.
- Reports her main motivation was to have husband go back to work and he hasn't done so yet, she is also worried about infidelity
- she regrets her decision to donate



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## RISK FACTORS FOR DEPRESSION AND ANXIETY IN DONORS

## DONOR FACTORS

**Sociodemographic factors**

- **Having greater financial burden**
- **Being single**

**Donor's physical health status**

- **Actual health**
- **Comorbid medical conditions eg obesity, hypertension**
- **Poor outcomes post-surgery eg post-operative complications, persistent symptoms, longer duration of stay**
- **Perceived health**
- **Pre-surgical health related concerns**
- **Perceived susceptibility to illness**
- **Perceived negative health due to surgery**
- **Actual and perceived poor physical or psychological outcomes in recipient's post-transplant**

**Donor's psychosocial health**

- **Psychiatric history of depression**
- **Pre-donation mood disturbance**

**Higher depression and anxiety were most often found to be correlated with:**

- **Regret after donation**
- **Poorer mental QOL**
- **Poorer life satisfaction**

**Protective factors against depression and anxiety**

- **Available support system, including family support**
- **Improved or maintained relationship with recipient**

# Depression And Anxiety in Donors: Recipient Factors

Recipient death was one of the poor outcomes studied in several papers and was associated with increased risk of depression/anxiety in donors

Donors who experienced recipient death were predisposed to other negative psychological outcomes such as poor social functioning and poor quality of sleep

A study found that of donors reporting recipient death during the follow-up period, 33% felt guilty and 22% felt responsible for the recipient's death

Other poor outcomes in recipients associated with increased risk of depression/anxiety in donors include recipient graft loss, medical/surgical complications, and psychiatric disorders

Donor perception of recipient's health and functioning status also played a similar role



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Hospital Anxiety and  
Depression Scale (HADS)



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# Depression Screening

## The Patient Health Questionnaire (PHQ-9)

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
3. Trouble falling asleep, staying asleep, or 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're 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

Column Totals \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

Add Totals Together \_\_\_\_\_

10. If you checked off any problems, how difficult have those 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



PHQ-9 Score	Provisional Diagnosis	Treatment Recommendation
<i>Patient Preferences should be considered</i>		
5-9	Minimal Symptoms*	Support, educate to call if worse, return in one month
10-14	Minor depression ++ Dysthymia* Major Depression, mild	Support, watchful waiting Antidepressant or psychotherapy Antidepressant or psychotherapy
15-19	Major depression, moderately severe	Antidepressant or psychotherapy
>20	Major Depression, severe	Antidepressant and psychotherapy (especially if not improved on monotherapy)

1. Kroenke K, Spitzer R, Williams W. The PHQ-9: Validity of a brief depression severity measure. JGIM, 2001, 16:606-616

# Case

- 36 year old married woman, mother of 3 children under the age of 15 now 5 months post donation of kidney to her husband. Reports difficulty with sleep, complains of numbness and tingling and at times sharp pain at the surgical site. She also endorses being tearful with worries about finances.
- She scores a 15 on her phq 9, question 9 is a 0
- What should next steps be?

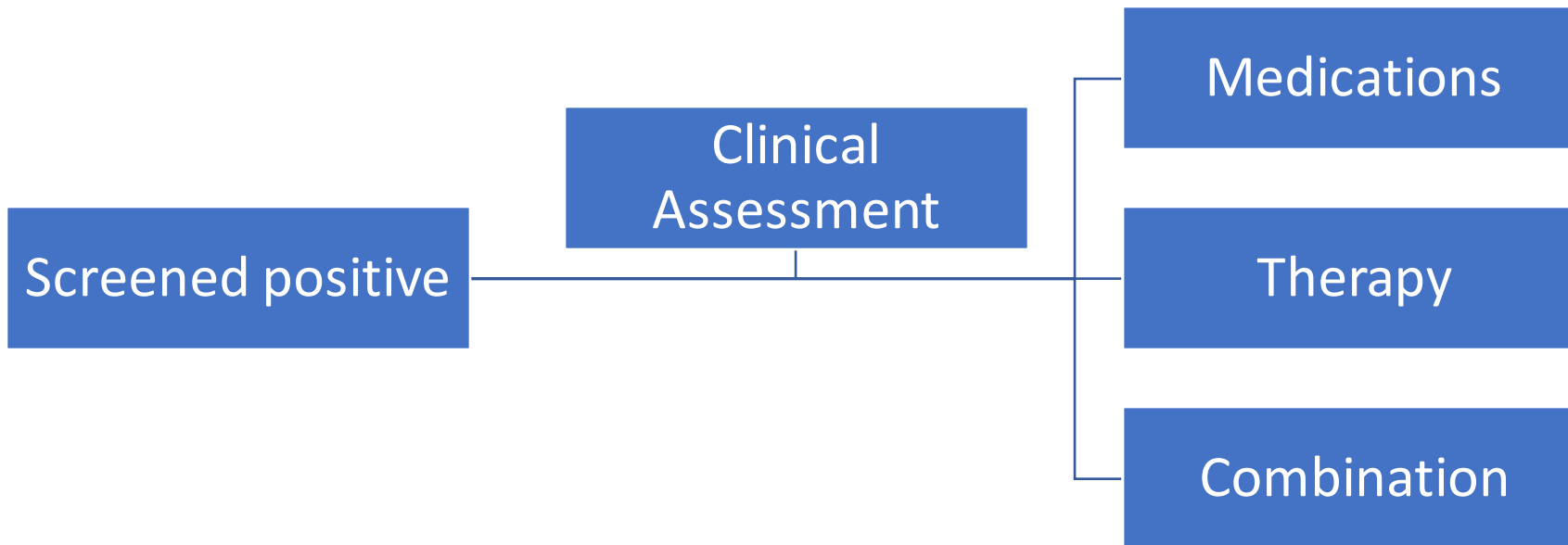


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# Treatment

- Basic principles:





# Medications



**Antidepressants:** Antidepressants are medications that are used to treat depression and anxiety. There are several different types of antidepressants, including selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and tricyclic antidepressants (TCAs). These medications work by changing the levels of certain chemicals in the brain that are involved in mood regulation.

**Anxiolytics:** Anxiolytics are medications that are used to treat anxiety. Benzodiazepines are a common type of anxiolytic medication, and they work by enhancing the effects of a neurotransmitter called GABA, which helps to reduce anxiety. However, benzodiazepines can be habit-forming and can cause drowsiness, so they are typically used only for short-term treatment of anxiety.

**Mood stabilizers:** Mood stabilizers are medications that are used to treat bipolar disorder, which is a condition characterized by periods of depression and mania. These medications work by regulating the levels of certain chemicals in the brain that are involved in mood regulation.

**Antipsychotics:** Antipsychotic medications are sometimes used to treat depression and anxiety, particularly in individuals who have psychotic symptoms or who do not respond to other treatments. These medications work by changing the levels of certain chemicals in the brain that are involved in mood regulation.

**Other medications:** There are a number of other medications that may be used to treat depression and anxiety, including beta blockers, which are used to treat anxiety and certain types of antidepressants, and stimulants, which are used to treat depression in some individuals.



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# Models of Care



Primary care



Specialty care

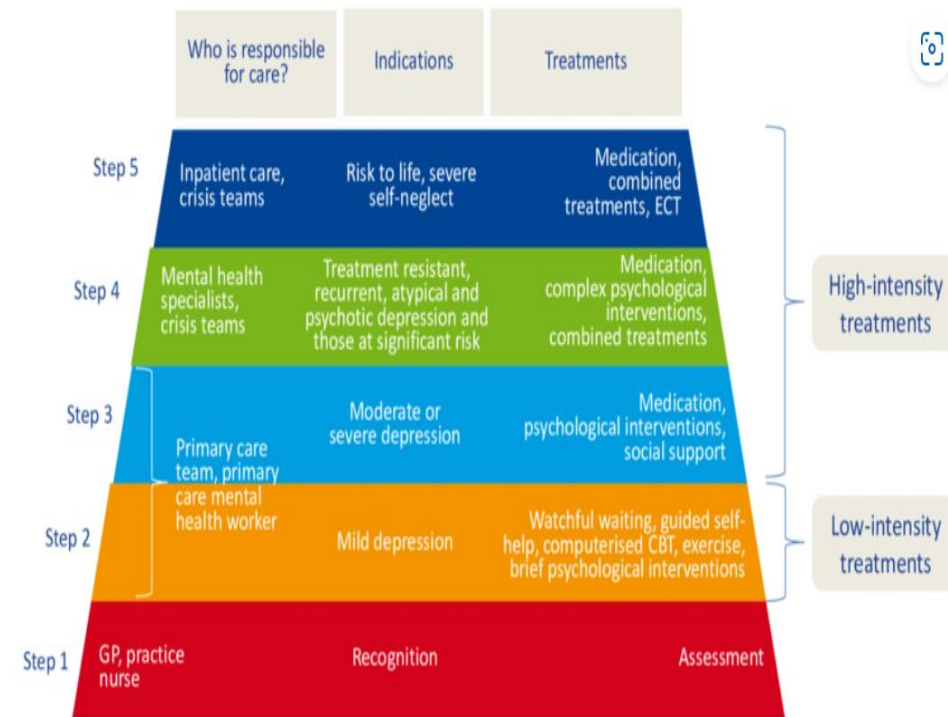
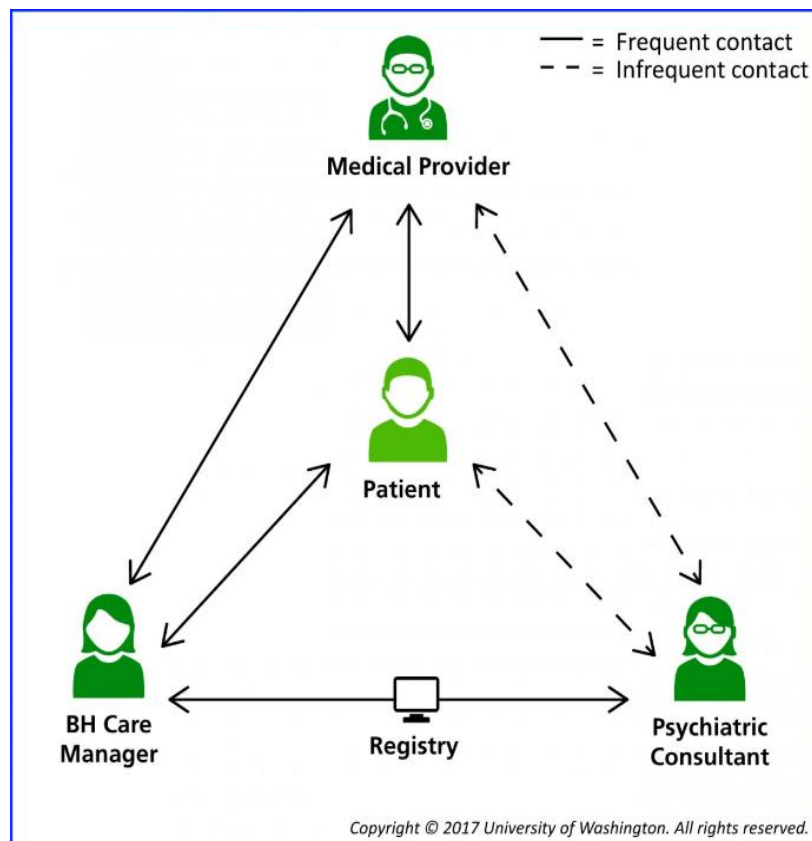
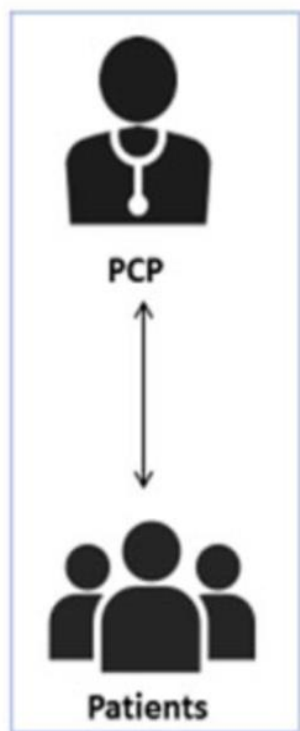


Co-located or Integrated  
behavioral health



# Integrated behavioral health

## Usual Care/Traditional Model



– Stepped-care model developed by NICE



# Additional Reading

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Questions



# Session Survey

Filza Hussain, MD | April 19<sup>th</sup> 11:15 AM-12:15 PM



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