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Assessment and Management Of Mental Illness

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Factors Impacting Mental Health

- Pre-Transplant Factors
  - Multiple hospital visits/appointments, loss of autonomy, fear of death, decreased quality of life due to medical conditions
- Post-Transplant Factors
  - Unmet expectations, multiple medications, fear of rejection, setbacks, survivor's guilt, side effects from steroids and immunosuppressants
- Why is identification and treatment important?
  - Improve Quality of Life
  - Increase medication adherence
  - Improve post-transplant outcomes and survival rates

Outline

- Depression
- Anxiety
- PTSD
- Bipolar Disorder

Major Depressive Disorder

Transplant patients with MDD:

- Increased risk for decreased QOL, medication non-adherence, graft loss.
- Higher risk of mortality post-transplant
- Other consequences include: less physically active, compromised immune function if less engaged in household cleaning/diet, and decreased engagement with the team.

Prevalence

- Depression; 20-25% kidney transplant patients, 30% lung transplant patients, 30% heart transplant patients.
- Anxiety; 10-70%
- Insomnia

Overlap of Symptoms

- Symptoms of organ failure or symptoms of anxiety and depression?
  - Fatigue, poor sleep, low appetite, decreased attention to ADLs, irritability, etc.

- Let's look at the DSM criteria…

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Generalized Anxiety Disorder

DSM-5 Criteria

- Characterized by uncontrollable and excessive worrying/anxiety
  - for more days than not
  - for at least 6 months
  - about several events and activities
  - causing significant distress/impairment in functioning
- Anxiety/worry is out of proportion to actual likelihood or impact of event/activity
- Worries are more excessive, more distressing, have longer duration, and occur more spontaneously than those experienced by non-pathological individuals
- Three of the six following symptoms must be present for diagnosis in adults; Only one symptom must be present for children:
  - Restlessness or feeling on edge
  - Easily fatigued
  - Difficulty concentrating or mind going blank
  - Irritability
  - Muscle Tension
  - Difficulty sleeping

(*DSM-5*, 2013)

https://slideplayer.com/amp/4100731/

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Major Depressive Disorder

Table 1 DSM-5 criteria for MDE

- At least five of the following symptoms that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning
- At least one of the symptoms is 1) depressed mood or 2) loss of interest or pleasure
- Symptoms must be present almost every day for at least 2 weeks
  1. Depressed mood most of the day
  2. Diminished interest or pleasure in all or most activities
  3. Significant unintentional weight loss or gain
  4. Insomnia or sleeping too much
  5. Agitation or psychomotor retardation noticed by others
  6. Fatigue or loss of energy
  7. Feelings of worthlessness or excessive guilt
  8. Diminished ability to think or concentrate, or indecisiveness
  9. Recurrent thoughts of death
- Diagnosis of recurrent MDD requires ≥2 MDEs separated by at least 2 months in which criteria are not met for an MDE

Abbreviations: DSM-5, Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition; MDD, major depressive disorder; MDE, major depressive episode.

https://www.dovepress.com/cr_data/article_fulltext/s73000/73261/img/NDT-73261-T01.png

Differentials

- Depression or Anxiety due to a general medical condition
- Adjustment Disorder with anxious or depressed mood.
- Unspecified Anxiety or Depression.

How are they different?

- Some key differences:
  - Hopelessness, anhedonia (loss of interest), suicidal thoughts
  - Excessive rumination
  - Loss of motivation
  - Impairment in Functioning
  - Participation in care, Adherence

Assessments

- So how can we assess for anxiety and depression?
- Clinical Diagnostic Interview
- Free Screening Tools
  - GAD-7
  - PHQ-9

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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 or 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 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 figety 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	0	1	2	3
	add columns		+	+

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems*, how *difficult* 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 _____

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PHQ-9 Score	GAD-7 Score	Severity	Proposed Treatment Actions
0 - 4	0 - 5	None	None
5 - 9	6 - 10	Mild	Watchful waiting, repeating at follow-up.
10 - 14	11 - 15	Moderate	Consider CBT and pharmacotherapy.
15 - 19		Moderately Severe	Immediate initiation of pharmacotherapy and CBT.
20 - 27	16 - 21	Severe	Initiation of pharmacotherapy and CBT. Consider specialist referral to psychiatrist.

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

Total Score ___ = Add Columns ___ + ___ + ___

If you checked off any problems, how difficult 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
☐	☐	☐	☐

Jamanetwork.com

Other Considerations

- Effect of steroids/immunosuppressants
- Delirium (especially when inpatient)
- Pain control
- Vitamin Deficiencies
- Thyroid abnormalities
- Substance Use

Treatment

- Research shows transplant patients with untreated depression have lower survival rates when compared to patients without depression and patients with effective antidepressant treatment.

Pharmacological Treatments

- SSRIs are first line for GAD and MDD
  - Sertraline, escitalopram, citalopram may be preferable given less risk for interactions.
  - Fluoxetine has higher potential for drug interactions.
    - Inhibits CYP2C19 (moderate) and CYP2D6 (strong)
- SNRIs are second line
  - Duloxetine may be helpful for patients with chronic pain
    - More activating than SSRIs

Pharmacological Treatments

- Mirtazapine (Alpha2-adrenergic antagonist)
  - Augmenting agent or second line
  - Helpful for depression, insomnia (lower doses), low appetite
  - Minimal drug interactions
- Bupropion (Dopamine Reuptake Inhibitor)
  - Alternative treatment for depression
  - Can help with low energy, concentration, motivation
- Hydroxyzine (H1 antagonist)
  - Useful for PRN anxiety, safer than benzodiazepines
- Buspirone
  - Alternative treatment for anxiety
  - Caution in renal dysfunction

Special Considerations

- SSRIs may increase risk of bleeding, can cause hyponatremia
- Sertraline can help treat pruritits in patients with liver failure
- Duloxetine can be hepatotoxic - avoid or use caution in those with liver dysfunction
- SNRIs and Bupropion may increase BP
- Bupropion lowers seizure threshold, can exacerbate anxiety/irritability
- Monitor for QTC prolongation
- Serotonin syndrome can occur with multiple serotonin increasing medications

Looks Like Hypomania

- Agitation, irritability, insomnia, anxiety, lability, racing thoughts, paranoia, risky or odd behavior, hyperactive
- Most prevalent in the early post-transplant period due to high doses of steroids and IS meds; r/o other medical causes (delirium)
- Uncomfortable and puts patient at risk for non-adherence and other management problems

Treatment of Hypomania

- Decrease doses of steroids/IS if possible

Meds:

- Oxcarbazepine
- Valproic acid
- Lamotrigine
- Quetiapine
- Olanzapine

Avoid: lithium, carbamazepine

Non-Pharmacological Interventions

- Individual Psychotherapy
- Group Therapy/Support Groups
- CBT, solution focused brief therapy, supportive therapy, dignity therapy, existential and meaning centered therapy.
- Mindfulness, meditation, progressive muscle relaxation, exercise
- Social Work

Coping Skills Group

- https://www.youtube.com/watch?v=UW9eP3w6TbM

COVID-19 Pandemic

- Lung Transplant Patients

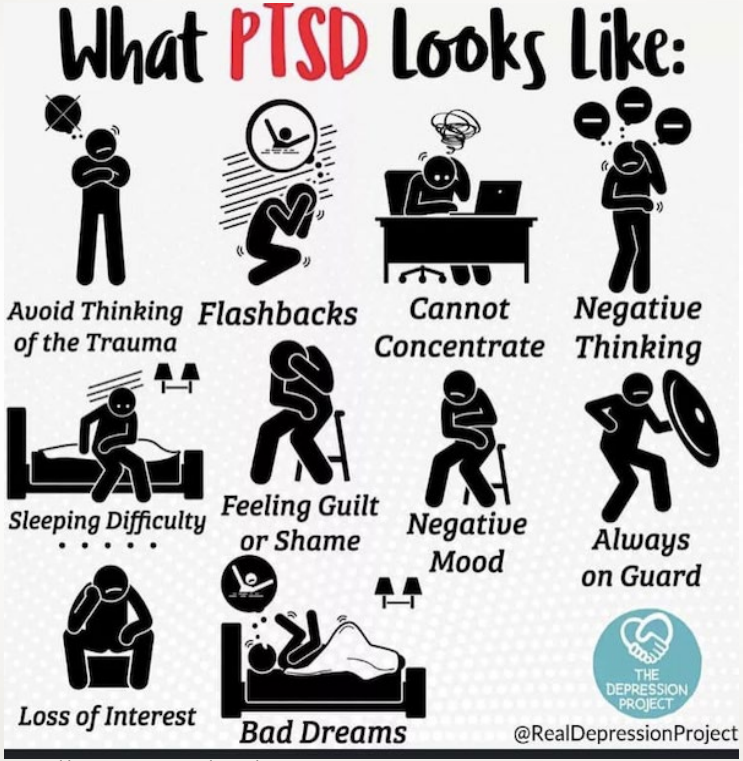
. 2015 Sep-Oct;37(5):387-98.
doi: 10.1016/j.genhosppsych.2015.05.005. Epub 2015 May 28.

Posttraumatic stress disorder in organ transplant recipients: a systematic review

Dimitry S Davydow[1], Erika D Lease[2], Jorge D Reyes[3]

- **Results:** Twenty-three studies were included. Post-transplant, the point prevalence of clinician-ascertained PTSD ranged from 1% to 16% (n=738), the point prevalence of questionnaire-assessed substantial PTSD symptoms ranged from 0% to 46% (n=1024) and the cumulative incidence of clinician-ascertained transplant-specific PTSD ranged from 10% to 17% (n=482). Consistent predictors of posttransplant PTSD included history of psychiatric illness prior to transplantation and poor social support post-transplantation. Post-transplant PTSD was consistently associated with worse mental HRQOL and potentially associated with worse physical HRQOL.
- **Conclusions:** PTSD may impact a substantial proportion of organ transplant recipients. Future studies should focus on transplant-specific PTSD and clarify potential risk factors for, and adverse outcomes related to, posttransplant PTSD

Post Traumatic Stress Disorder



https://www.nmac.org/ptsd/

Prevalence

- 3.5 % of the US population
- 2-5x higher in Transplant patients
- More than 25% will have some symptoms
- A systematic review found that an average of 16% of patients met criteria for PTSD 2 years post-transplant (all organs).

Differentials

- Effect of steroids/immunosuppressants
- Acute Stress Disorder
- Adjustment Disorder
- Substance Use

Risk Factors

- Female
- Younger Age
- Lower education level
- Prior Psychiatric illness
- Prior Traumatic experiences
- Prior diagnosis of PTSD
- Poor Social Support
- Longer ICU stay
- Complicated post-transplant course

https://www.cdc.gov/diabetes/basics/risk-factors.html

Why is it important?

- What kinds of issues do you think could arise if PTSD from transplant is left untreated?

https://www.scientificworldinfo.com/2021/03/importance-of-creative-thinking-in-life.html

- If untreated negative outcomes of PTSD post-transplant can include…
  - Worse mental health, decreased physical functioning, impaired social functioning, non-adherence to medication, decreased quality of life, higher reports of bodily pain, substance use, and increased risk for mortality.

Assessment Tools

- Primary Care PTSD Screen
  - If positive refer to psychiatry for further assessment and clinical interview.

In your life, have you ever had any experience that was so frightening, horrible or upsetting that, in the past month, you:*

1. Have had nightmares about it or thought about it when you did not want to?	Yes or No
2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?	Yes or No
3. Were constantly on guard, watchful, or easily startled?	Yes or No
4. Felt numb or detached from others, activities, or your surroundings?	Yes or No

*A score of 3 or higher should prompt additional evaluation.
Source: Prins A et al. *Prim Care Psychiatry*. 2003.[18]

https://www.researchgate.net/figure/Th-e-4-question-Primary-Care-PTSD-Screen_tbl2_41416164

Trauma Informed Care

https://ttiinc.org/trauma-informed-care/

Pharmacological Treatments

- Current evidence is strongest for SSRIs
  - Sertraline, paroxetine, and fluoxetine
- Venlafaxine (SNRI) also has a strong level of evidence
- All other medications are considered "off-label" for this indication
  - Prazosin
    - Can help nightmares, monitor blood pressure
  - Topiramate
    - Higher risk of adverse effects, cognitive dulling

Non-Pharmacological Interventions

- Individual Psychotherapy
  - CBT
- EMDR, Brain Spotting
- Mindfulness/Meditation
- Transplant support groups

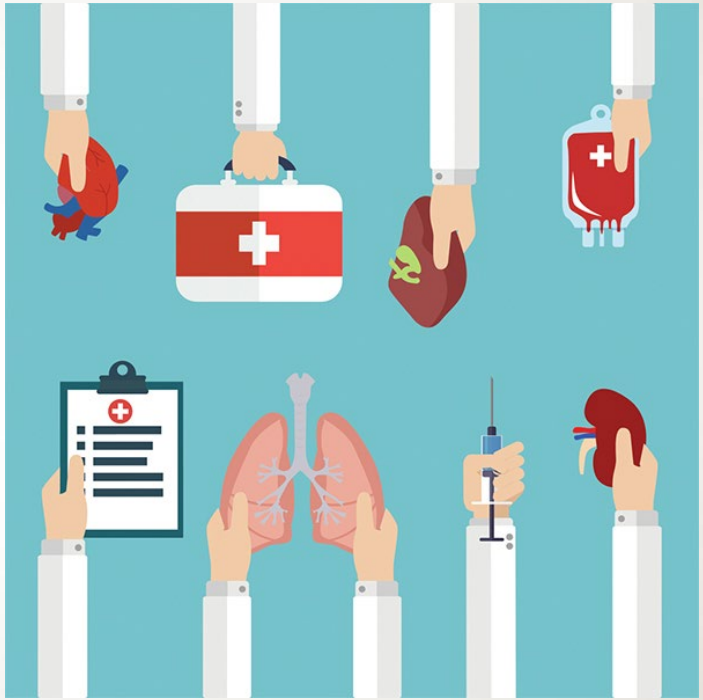
https://www.everydayhealth.com/meditation/

Bipolar Disorder

Benjavisa Ruangvaree/Adobe Stock

Bipolar Disorder and Transplant

- Risk for injury
- Medication non-compliance
- Disruptive to social supports
- Impair doctor-patient communication
- Early identification and treatment improves outcomes
- Chronic condition requiring ongoing pharmacological treatment to maintain stability



Human organs for transplantation (stefanamer, iStockphoto)

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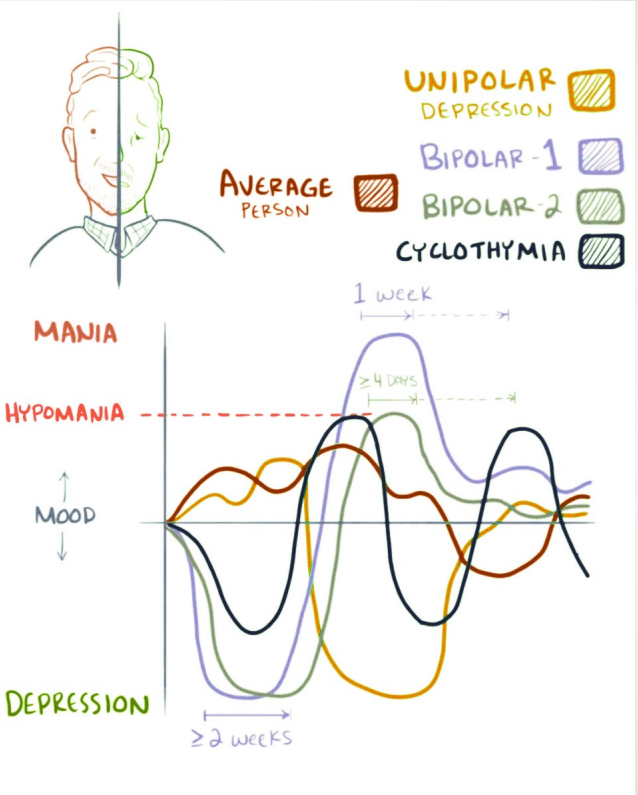
DSM 5 Criteria

	BD I	BD II	Cyclothymia
Main Symptom Criteria (Mania)			
Elevated or irritable mood	+	Often irritable	+
Increased activity or energy	Goal-directed	+	+
Increased self-esteem	+	+	+
Decreased need for sleep	+	+	+
Pressured speech	+	+	+
Distractibility	+	+	+
Increased risk taking behaviour (especially for those with comorbid BPD)	+	+	
Main Symptom Criteria for Depressive episodes (Same as MDD)		+	
Severity and duration of episodes			
(Hypo)Mania	Mania	Hypomania**	Sub-threshold Mania
Number of Symptoms	3–4 symptoms	3–4 symptoms	⩽ 3 symptoms
Duration of Episode	> 7 days	4–7 days	< 4 days
Impact on functioning	Disrupts social and occupational functioning or results in hospitalisation	Not severe enough to disrupt functioning or result in hospitalisation	Symptoms of (hypo)mania/ depression cause significant distress or impairment in functioning
Depression	Depression	Depression	Sub-threshold Depression
Number of Symptoms	> 5 symptoms	> 5 symptoms	⩽ 5 symptoms
Duration	2 weeks	2 weeks	< 2 weeks
Frequency of episodes	⩾1 manic episode*	>1 hypomanic + ⩾1 depressive episode	Fluctuating subthreshold hypomanic and depressive symptoms for >2 years (>1 year for children/adolescents)

Malhi, Gin & Bassett, Darryl & Boyce, Philip & Bryant, Richard & Fitzgerald, Paul & Fritz, Kristina & Hopwood, Malcolm & Lyndon, Bill & Mulder, Roger & Murray, Greg & Porter, Richard & Singh, Ajeet. (2015). Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for mood disorders. Australian & New Zealand Journal of Psychiatry. 49. 1087-1206. 10.1177/0004867415617657.



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SIGE CAPS

The mnemonic SIGE CAPS is useful to remember the diagnostic criteria for major depressive disorder:

- **S**–Sleep changes
- **I**–Interest loss
- **G**–Guilt (worthlessness)
- **E**–Energy loss (fatigue)
- **C**–Cognition/concentration difficulties
- **A**–Appetite loss and/or weight loss
- **P**–Psychomotor (agitation)
- **S**–Suicidal ideations

https://www.hmpgloballearningnetwork.com/site/emsworld/article/10931747/managing-psychiatric-emergencies

DIG FAST

Use the mnemonic DIG FAST to remember the diagnostic criteria for manic episodes:

- **D**–Distractibility
- **I**–Indiscretions (excessive pleasure activities)
- **G**–Grandiosity
- **F**–Flight of ideas
- **A**–Activity increase
- **S**–Sleep deficits
- **T**–Talkativeness

https://www.hmpgloballearningnetwork.com/site/emsworld/article/10931747/managing-psychiatric-emergencies

Epidemiology

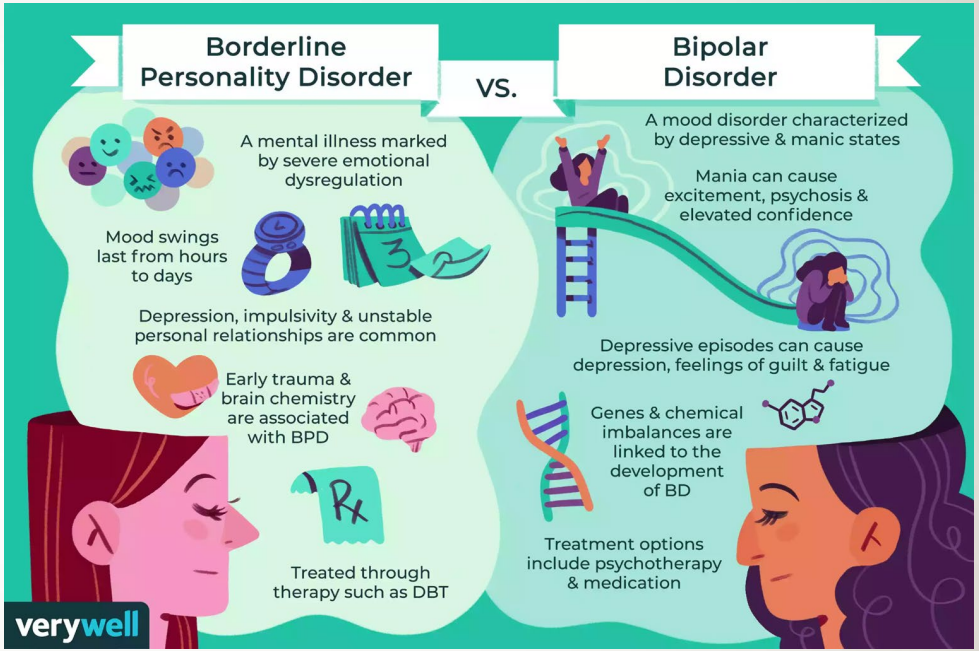
- Incidence and Prevalence
  - Lifetime prevalence 2.6-7.8%
  - Mean age of onset is 25-30 years old
  - No gender difference for diagnosis
- Etiology
  - Genetics
  - Stress
  - Biological factors

Comorbidities

- Substance use disorders (61%)
- Panic disorder (21%)
- Obsessive-compulsive disorders (21%)
- Social anxiety disorder
- Eating disorders

Differentials

- Substance/medication induced hypomania/mania
  - Prednisone
  - Tacrolimus
- Due to general medical condition
- Delirium
- Anxiety
- PTSD
- Personality Disorders

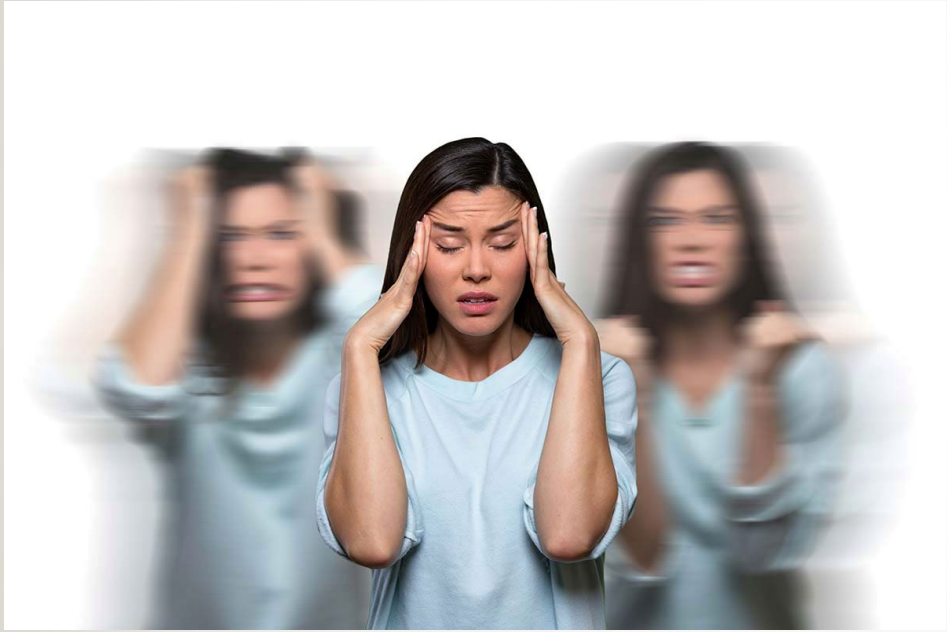


https://www.verywellhealth.com/bpd-vs-bipolar-5096132

Transplant Risks

- What do you think are some of the risks for a patient with bipolar disorder being considered for transplant?
- How should we be proactive in our treatment plan for this patient population?

Assessment



https://www.rosehillcenter.org/wp-content/uploads/2020/01/recognizing-bipolar-disorder-in-loved-ones.jpg

- Behavior changes
  - Sleep, energy, mood, impaired judgement
- Hospitalization vs. psychiatry Referral
- Diagnostic psychiatric interview and thorough psychiatric and substance use history

Treatment

- Pharmacological treatment
  - Lithium considerations
  - Mood stabilizers and antipsychotics
  - Reduce steroids if medically possible
- Non-pharmacological treatment
  - Therapy
  - Self-management strategies
  - Complementary health approaches
  - Electroconvulsive therapy

Conclusion

- Vulnerability of Transplant Patients
- Why identification/treatment is important
- Assessment
- Pharmacological and Non-Pharmacological Treatment

Closing Thoughts

- "Psychiatric care is important to the unique perioperative treatment and chronic care of organ transplant recipients. Organ transplantation is a source of great hope, but the wait for a suitable donor organ can be challenging for both the doctor and patient, and postoperative complications are commonplace. In this setting, psychiatric care is a major support to ongoing surgical care rehabilitation, stress reduction, and medical compliance."

  - from "Psychiatric Care of Patients Undergoing Organ Transplantation"

Transplant Psychiatry

- Identifying and treating mental health issues pre-transplant to help mitigate post-transplant complications.
- Mental health and support of the post-transplant patient.

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Questions?