What is depression?

- Depression is a serious medical condition that affects a person’s feelings, thoughts, overall joy for life, and ability to function in everyday life.
- It may occur at any time during the course of PD and may occur even before the motor features.
- Depression occurs in 40 to 50% of persons with PD at some time in their illness, 5-20% moderate to severe.
Prevalence of depression


Depression in PD: how common is it and what are the outcomes

- Associated with increased disability
- Associated with impaired quality of life.
- Tends to be under recognized and under treated in patients with PD
  - As many as 40% of depressed patients are not treated or not referred for treatment

WHY??
Why is Depression in PD under recognized?

- Major depression and Parkinson’s disease share common symptoms.
- Depression may be confused with other conditions such as dementia and apathy.
- Patients may be hesitant to bring up depressive symptoms to their doctor.

Diagnostic criteria for depression

- Five or more of the symptoms below present every day, for most of the day, for at least two weeks.
- At least one of:
  - Depressed mood or
  - Anhedonia – loss of interest in usual activities
- Other symptoms may include:
  - Changes in appetite or weight
  - Too little or too much sleep
  - Fatigue or loss of energy
  - Feelings of guilt of worthlessness
  - Difficulty thinking, or making decisions
  - Recurrent thoughts of death or suicidal thoughts
Depression in PD: symptoms

• Compared to non-PD depressed patients:
  – **More:**
    • anguish, anxiety, irritability,
    • pessimism regarding the future,
    • suicidal ideation
  – **Less:**
    • guilt, self-blame,
    • feelings of failure,
    • suicide

• Depressive symptoms are closely related to sleep disturbance, primarily insomnia, and sexual dysfunction.
• Patients with PD who have fluctuations in their motor symptoms may also have fluctuations in their mood.
Depression in PD

• Depressive symptoms in PD patients are closely related to depression, fatigue, sadness, and less life satisfaction in caregivers.

Depression can sometimes be mistaken for dementia

• Depression is commonly associated with thinking and memory problems.
• Depression and dementia share common signs and symptoms such as low energy, lack of motivation, poor appetite, and poor sleep.
• Caregiver or family informant may be helpful for providing information.
• Mood features of depression help to distinguish.
“Syndrome of apathy”

- Defined as primary loss of motivation, interest, and effortful behavior leading to lack of productivity, dependence on others and flattened response to positive or negative events.
- May occur in the absence of dementia or depression

Depression rating scales completed by the patient or administered by health care providers are helpful for recognizing depression in PD and for measuring severity and response to therapy.

- Beck Depression Inventory
- Geriatric Depression Scale
- Hamilton Depression Rating Scale
- Montgomery Asberg Depression Rating Scale
What causes depression in PD?

• Most research suggests that depression in PD is related to biological changes in chemicals in the brain that transmit nerve impulses.
• A genetic predisposition may be present
• Environmental triggers to episodes of depression include stress, difficult life events, and medication side effects.

Once recognized, seek treatment!!

• Antidepressant medication
• Psychotherapy (talk therapy)

Treating depression can help people feel better and help them to cope with the other aspects of Parkinson’s disease and the treatment.
Important aspects of managing depression

- Assessment for suicidal thoughts or plan
- Assessment for psychosis – hallucinations or delusions
- Assessment for substances that may cause depressive symptoms such as sedatives, narcotic pain meds, or alcohol
- Association of other conditions that may cause depression or have symptoms in common with depression such as dementia, thyroid problems, or diabetes
- Prior history of depression and response to treatment

Medical treatment of depression

General comments

- Medications may take 8 to 16 weeks before benefit is seen
- Duration of treatment is usually 6 to 12 months after depression has resolved
- Longterm treatment may be needed for patients with frequent relapses
Medical Treatment of Depression

• Selective serotonin reuptake inhibitors (SSRI)
  – Considered first line by most VA physicians
• Atypical antidepressants
• Tricyclic antidepressants

• Monoamine oxidase inhibitors should be avoided in PD patients on dopaminergic medications due to potential serious drug interactions.
  – Phenelzine (Nardil), Tranylcypromine (Parnate)

Selective Serotonin reuptake inhibitors

• Fluoxetine (Prozac) and sertraline (Zoloft) -
  – tend to be activating
  – Side effects – nausea, insomnia, anxiety, and sexual dysfunction
• Paroxetine (Paxil) –
  – Mildly sedating and may lessen anxiety
  – Side effects – nausea, dry mouth, and sexual dysfunction
• Citalopram (Celexa)
  – Helpful for anxiety
  – Less potential for drug interactions due to milder p450 inhibition
  – May cause less sexual dysfunction
• Escitalopram (Lexapro)
  – Profile similar to citalopram, but more potent
Atypical antidepressants

- **Mirtazapine (Remeron)**
  - Useful for depression with anxiety and insomnia. May increase appetite as well.
  - Side effects include sedation (greater at lower doses), weight gain, dry mouth.
  - Less sexual dysfunction
- **Bupropion (Wellbutrin)**
  - May be useful in patients with fatigue and poor concentration due to stimulant properties.
  - Side effects: HA is common, seizures are rare (0.4%) but serious
- **Venlafaxine (Effexor)**
  - Has anti-anxiety properties
  - Side effects include nausea, dizziness, constipation and sweating
  - Blood pressure monitoring recommended
- **Duloxetine (Cymbalta)**
  - Side effects: Nausea is common along with constipation, dizziness, sweating,

Tricyclic antidepressants

- Usually used as second or third choice medications due to side effect profile.
- Effects on thinking can cause confusion
- Low blood pressure when standing causes dizziness that can lead to falls.
- Sedation, weight gain, and sexual dysfunction are common
- Amitriptyline and imipramine have higher sedation
- Nortriptyline is less sedating, with less orthostatic hypotension
Potential interactions of antidepressants with rasagiline (Azilect) / selegiline (Deprenyl)

- There are case reports of serious interactions known as the serotonin syndrome but frequency is very low (estimated to be 0.24%).
- Symptoms / signs include fever, confusion, agitation, stupor, sweating, diarrhea, delusions, mania, tremor, rigidity
- Manufacturer recommendations:
  - Selegiline (Deprenyl) – avoid combined use of selegiline with antidepressants
  - Rasagiline (Azilect) – mirtazapine is contraindicated; “seems prudent to avoid combining rasagiline and all antidepressants”. A 14 day wash out is recommended

Potential interactions of antidepressants and rasagiline / selegiline

- Rasagiline clinical trials allowed use of antidepressants. No serious interactions were reported among 250 treated patients.
- Conclusion: Risk is low. Careful monitoring and good patient education are important if combining these medications with antidepressants.
Alternative therapy for depression

Please discuss use of these over the counter remedies with your health care provider due to potential for significant side effects and harmful interactions.

• St. John’s Wort -
  – May be helpful for mild depression
  – Side effects: increased sensitivity to sunlight, dizziness, nausea, fatigue, headache, or sexual dysfunction.
  – Side effects may be increased when combined with antidepressant medications

Alternative therapy for depression: possibly effective

• SAM-e (S-Adenosyl-L methionine)
• Fish oil (omega-3 fatty acids)
• Gingko biloba
• Goji juice
• Symptoms of depression include sad mood, diminished ability to enjoy things, changes in appetite and sleep, poor energy, and poor thinking and concentration.

• Depression is treatable so bring these symptoms to the attention of your health care provider if present.