Parkinson’s disease: Care of the Client

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Introduction

Parkinson's is a degenerative neurological condition, for which there currently is no cure. The main symptoms of the condition are tremor, slowness of movement and rigidity. Parkinson's disease is caused by the progressive loss of dopaminergic nerve cells in the substantia nigra of the basal ganglia in the brain’s lower region, on either side of the brainstem. This damage to nerve cells will have been going on for a long time before symptoms become apparent. Dopamine is integral to movement coordination; once 70% of dopaminergic nerve cells are lost, PD signs and symptoms become evident. Parkinson’s disease (PD) most often affects people older than age 60. About 5% to 10% of cases occur before age 50 (Boxer Muhammad Ali at age 42 and actor Michael J. Fox at age 30). The cause of Parkinson’s disease isn’t known.

The Burden of PD

Due to its chronic nature, PD can be burdensome to the individual, family, and healthcare delivery system, and is associated with a significant increase in morbidity and disability. The economic burden of the disease is substantial, related to direct/indirect costs and medical resource utilization. The total cost of PD in the United States was projected to be $23 billion annually, including direct and indirect costs. For the patient with PD, limitations in functional ability and nonmotor symptoms severely impact health related quality of life which continues to deteriorate as the disease progresses. For the caregivers of patients with PD, The shift in lifestyle to a caregiver role can be physically and mentally exhausting, leading to enormous stress, fatigue, anxiety, and ultimately depression; social activities of the caregiver are impaired and a financial burden often occurs. Care is needed for physical limitations of the patient as well as the inevitable cognitive and psychiatric complications, which can begin early in the disease.
Caregiver burden has been shown to increase in direct proportion to disease progression and severity.

**What is Parkinson’s disease?**

Parkinson's disease is a progressive and degenerative neurological condition, which results in the loss of dopamine-producing cells in the brain. Characterized by hallmark signs of bradykinesia, rigidity, tremor, and postural instability, it is superseded only by Alzheimer’s disease as the most common neurodegenerative disorder.

**Pathophysiology of PD**

The pathologic hallmark of PD is degeneration of dopaminergic neurons in the substantia nigra pars compacta (SNc), resulting in depletion of striatal dopamine. This neurotransmitter regulates excitatory and inhibitory outflow of the basal ganglia.

**Cardinal Motor Features**

The cardinal motor features of PD are rest tremor, bradykinesia, rigidity, and postural instability. Onset is usually unilateral. Two of the first 3 features are required for diagnosis. Postural instability - characterized by shuffling, freezing, impaired balance, and falls which usually occurs later in the disease course.

**Clinical manifestations.**

The early signs of Parkinson's may be subtle and can be confused with other conditions. They include:

- Slight shaking of a finger, hand, leg, or lip
- Stiffness or difficulty walking
- Difficulty getting out of a chair
- Small, crowded handwriting

**Pill Rolling: alternating tremor, often of the thumb against the index finger**

- How does resting tremor differ from other types of tremor?
- *The tremor in PD, typically described as "pill-rolling", is a rest tremor, meaning that it is most noticeable when the tremulous body part is supported by gravity and not engaged in purposeful activities.*
- *Tremors in other conditions, such as essential tremor or multiple sclerosis, are typically action tremors, in which the tremor occurs when the affected limb is being used.*

Care of a client with Parkinson’s disease. WestAfricaneducatednurses.org  March 8, 2016  pg. 3
Stooped posture
A 'masked' face, frozen in a serious expression

**Tremor**: Occurs with hands at rest, and is often described as "pill rolling." Leg tremor is also common; tremor may also affect lips, neck, tongue, or face, though these often occur later in PD. Tremor classically abates with action but some patients also display a significant postural or action tremor, which may be more intrusive in activities of daily living. In 75% of patients, unilateral rest tremor is the first visible motor sign of PD.

**Bradykinesia**: Slowness of movement is insidious and may be initially mistaken for normal aging, the effects of arthritis, or even depression. Bradykinesia is often the most disabling motor feature of the disease, slowing mobility and impairing activities of daily living.

**Rigidity**: Cogwheel rigidity may be assessed during passive motion of the limbs or neck, and may be worsened with activity of the contralateral limb. Increased resistance is felt throughout the range of motion independent of speed, unlike the velocity dependence and catch-and-give quality of resistance of spasticity. Stiffness is not always reported by the patient, although they may complain of common joint-related pain syndromes such as tennis elbow or low back pain.

Other early signs and symptoms that may help confirm the diagnosis include:

- Loss of sense of smell (usually manifesting as loss of taste)
- Smaller handwriting
- Loss of facial expression
- Excessive salivation (ie, overnight on pillow)
- Constipation
- Stooped posture
- Slower gait
- Difficulty rising from a chair or getting in or out of an automobile
- Dystonic cramping of foot or toes curling at night
- Family report of lower voice volume
The full range of symptoms in PD encompasses motor, sensory, cognitive, and autonomic systems. See table 1.

<table>
<thead>
<tr>
<th>Table 1. Signs and Symptoms of Parkinson's Disease</th>
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<tbody>
<tr>
<td><strong>Motor</strong></td>
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<tr>
<td>Slowness</td>
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<tr>
<td>Tremor</td>
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<tr>
<td>Stiffness</td>
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<tr>
<td>Postural instability</td>
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<tr>
<td>Stooded, shuffling gait</td>
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<tr>
<td>Decreased arm swing when walking</td>
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<tr>
<td>Lower extremity cramps</td>
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<tr>
<td>Weakness</td>
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<tr>
<td>Hypophonia</td>
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<tr>
<td>Swallowing difficulty</td>
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<tr>
<td>Reduced dexterity</td>
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<tr>
<td>Freezing</td>
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<tr>
<td>Masked facies</td>
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<td>Micrographia</td>
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</table>

Stages of Parkinson's disease

The Hoehn and Yahr Scale is one common tool that looks at the severity of symptoms. The Movement Disorder Society Unified Parkinson Disease Rating Scale (MDS-UPDRS) evaluates mental clarity and function, behavior and mood, activities of daily living, and movement. Staging can help determine the best treatment option. The MDS-UPDRS has four parts: consists of 4 parts that assess mental and behavior problems, ADLs, motor symptoms, and complications of therapy. The Schwab & England Activities of Daily Living Scale estimates the abilities of individuals living with Parkinson's disease relative to a completely independent situation. One hundred percent indicates a completely independent individual and 0% indicates an individual in who is no longer functioning. Each scale score is a reflection of disease burden.
on the individual patient and is useful in describing disease progression and treatment response with time.

### Table 1: Hoehn and Yahr Staging of Parkinson’s Disease

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Stage One</td>
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<tr>
<td></td>
<td>Signs and symptoms on one side only</td>
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<td></td>
<td>Symptoms mild</td>
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<tr>
<td></td>
<td>Symptoms inconvenient but not disabling</td>
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<td></td>
<td>Usually presents with tremor of one limb</td>
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<td></td>
<td>Friends have noticed changes in posture, locomotion and facial expression</td>
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<tr>
<td>2</td>
<td>Stage two</td>
</tr>
<tr>
<td></td>
<td>Symptoms are bilateral</td>
</tr>
<tr>
<td>Stage</td>
<td>Minimal disability</td>
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<tr>
<td>-------</td>
<td>--------------------</td>
</tr>
<tr>
<td>3</td>
<td>Stage three</td>
</tr>
<tr>
<td>4</td>
<td>Stage four</td>
</tr>
<tr>
<td>5</td>
<td>Stage five</td>
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</table>

**Management of PD**

Treatment starts with a comprehensive and accurate assessment. The motor assessment is the most obvious. Asking about tremor, rigidity or stiffness, balance, and slowness of movement is imperative; however, using language the patient and family will understand is paramount to effective ongoing communication. There is no cure for PD. The treatment is geared towards slowing disease progression and reducing disability while minimizing complications. Every person with Parkinson’s disease (PD) is different, not only in how he or she is affected by the disease, but also in how he or she reacts to the life changes that are associated with it. Treatment
of Parkinson’s should focus not just on the disease but also on the patient’s needs and preferences. A comprehensive care approach aims to reduce disability, maintain independence and enhance safety.

After the diagnosis of PD the patient should be instructed about the importance of regular aerobic exercise for maintaining general health, range of motion, strength, balance, and fitness. Walking, gardening, swimming, and other low-impact activities remain important parts of treatment throughout the early stages of disease and even later. Early treatment of PD does a better job of maintaining quality of life than delayed treatment.

Levodopa is the most effective symptomatic therapy, but long-term use increases the risk for motor complications, including dyskinesias. Dopamine agonists (DAs) provide good symptom control, approaching, but not equaling that of levodopa, while delaying the onset of motor complications (wearing off and dyskinesias). DAs are more likely than levodopa to cause intolerable side effects, especially in elderly patients or those with orthostatic hypotension or cognitive impairment.

**BOX 2: SCHWAB AND ENGLAND ACTIVITIES OF DAILY LIVING SCALE**

- Rating can be assigned by rater or by patient.
- 100%-Completely independent. Able to do all chores w/o slowness, difficulty, or impairment.
- 90%-Completely independent. Able to do all chores with some slowness, difficulty, or impairment. May take twice as long.
- 80%-Independent in most chores. Takes twice as long. Conscious of difficulty and slowing
- 70%-Not completely independent. More difficulty with chores. 3 to 4X along on chores for some. May take large part of day for chores.
- 60%-Some dependency. Can do most chores, but very slowly and with much effort. Errors, some impossible
- 50%-More dependent. Help with 1/2 of chores. Difficulty with everything
- 40%-Very dependent. Can assist with all chores but few alone
- 30%-With effort, now and then does a few chores alone of begins alone. Much help needed
- 20%-Nothing alone. Can do some slight help with some chores. Severe invalid
- 10%-Totally dependent, helpless
- 0%-Vegetative functions such as swallowing, bladder and bowel function are not functioning. Bedridden.
Table 2: Drugs used in the treatment of Parkinson’s disease

<table>
<thead>
<tr>
<th>Drug</th>
<th>Action</th>
<th>Possible adverse effects</th>
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| Levodopa and carbidopa (Sinemet, Sinemet CR, Parcopa) | Levodopa converts to dopamine in brain; carbidopa blocks levodopa conversion outside brain and decreases nausea. | - Dyskinesia  
- Orthostatic hypotension  
- Dry mouth  
- Nausea and vomiting  
Note: *It should not be taken with a high-protein diet.* |
| Levodopa-carbidopa with entacapone (Stalevo) | Entacapone component treats end-of-dose “wearing off.”                  | - Urine, saliva, or sweat discoloration  
- Diarrhea  
- Hyperkinesia  
- Abdominal pain |
| Dopamine agonists                          | Dopamine agonists stimulate dopamine receptors, allowing the brain to recognize it is receiving dopamine.  
Help decrease end-of-dose wearing off, “on-off” motor fluctuations (such as “freezing”), and dyskinesia.  
Amantadine is used as a secondary drug for patients with muscle rigidity and tremors. *Mimic dopamine effects in brain, causing reaction in neurons.* | - Hallucinations  
- Sleepiness  
- Fluid retention  
- Orthostatic hypotension  
- Hypersexuality  
- Compulsive gambling or overeating  
- Depression  
- Dry mouth  
- Insomnia  
- Sedation  
- Muscle spasms  
- Peripheral edema |
| Antiviral dopamine agonist                 |                                                                       |                                                             |
| Dopamine agonists                          | Dopamine agonists stimulate dopamine receptors, allowing the brain to recognize it is receiving dopamine.  
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- Depression  
- Dry mouth  
- Insomnia  
- Sedation  
- Muscle spasms  
- Peripheral edema |
| Catechol-O-methyltransferase Inhibitors (COMT inhibitors) | Used as adjuncts to levodopa-carbidopa  
Extend levodopa-carbidopa effect by blocking enzyme that breaks down levodopa | - Liver damage or failure  
- Blood in urine (with tolcapone)  
- Confusion  
- Headache  
- Hallucinations  
- Dizziness  
- Agitation  
- Insomnia  
- Rhinitis  
- Back pain |
### Monoamine oxidase type-B inhibitors (MAOBIs)

- **Selegiline** (Eldepryl, Carbex, Zelapar),
- **Rasagiline** (Azilect)

May be used to treat PD in early or late disease stages. In the early PD stages, MAOBIs can help delay the need for levodopa-carbidopa. In late disease stages, they may be used as adjuncts to levodopa-carbidopa to prevent its breakdown, thus helping more drug reach the brain. *Rasagiline may decrease freezing episodes as levodopa effects wear off.*

### Anticholinergics

- **benztropine mesylate** (Cogentin)
- **trihexyphenidyl** (Artane)

Ease tremors and may reduce dystonia related to end-of-dose wearing off
- Decrease acetylcholine activity

- Blurred vision
- Dry mouth
- Constipation
- Urine retention
- Confusion
- Nervousness

### Surgical management

**Deep Brain Stimulation (DBS)**

Electrodes can be implanted into one of three areas of the brain -- the globus pallidus, the thalamus, or the subthalamic nucleus -- on one or both sides. A pulse generator goes in the chest near the collarbone. Electric pulses stimulate the brain to help reduce a patient's rigidity, tremors, and bradykinesia. It doesn’t stop the progression of Parkinson's or affect other symptoms. Not everyone is a good candidate for this surgery.

**Adverse reactions** of DBS may include thought processes and speech disorders, visual and sensory disturbances, abnormal gait, lack of coordination,
Safety Alert

Dopaminergic drugs, especially DAs but also levodopa, have the potential to induce sudden and irresistible drowsiness leading to sudden onset of sleep. Although most patients will perceive warning signs of drowsiness before falling asleep, some may not. Such "sleep attacks" are rare but have the potential to cause serious accidents, including motor vehicle accidents. Patients beginning levodopa or a DA must be warned of the possibility of this serious side effect and counseled regarding whether to continue driving or operating dangerous machinery.

| **Surgery:** Pallidotomy and Thalamotomy |  
| These surgeries use radio-frequency energy to destroy a pea-sized area in the globus pallidus or the thalamus. These areas are associated with tremor, rigidity, and bradykinesia, so movement generally improves after surgery with less reliance on levodopa. But because these surgeries are irreversible, they have become less common than deep brain stimulation. Although thalamotomy can produce long-term tremor suppression, the other symptoms of Parkinson’s disease continue to progress. |  
|  
| Hemorrhage is a major complication so good control of blood pressure in the perioperative period is essential. An MRI is usually done within the first 24 hours to assess the lesion location and to exclude perioperative complications. Some patients experience parasthesias or tingling sensations of the fingers and mouth, but these generally subside over months. |  

**Levodopa-carbidopa (Sinemet)**

After taking Levodopa and carbidopa (Sinemet), for long periods of time, such as a year or more, some people suddenly lose the ability to move. This loss of movement may last from a few minutes to several hours. The person is then able to move as before. This condition may unexpectedly occur again and again. This problem is called the "on-off" effect. Changing the dosage regimen or switching to other medication may be helpful in minimizing On-Off effects of Sinemet.
Team Approach to management of PD

Members of the treatment team concentrate on all aspects of the patient’s needs: movement, ability to perform daily activities, communication and social needs, success in relationships, self-awareness, emotional health, wellness and even hobbies. Counseling, education and support are important functions of the team, and comprehensive care is enhanced when the patient takes an active role in his or her care. The patients, and their family and loved ones, are the most critical members of the team. Other team members may include physician assistants, nurses, social workers, physical therapists, occupational therapists, speech and language pathologists, creative therapists in art, music and recreation, and some teams include spiritual counselors, psychologists or neuropsychologists.

Physical therapists help the patient address issues such as strength, endurance, movement control, flexibility, gait, balance, freezing and fall prevention. The physical therapist can custom-tailor a home exercise program to improve mobility problems and prevent or reduce the impact of future anticipated problems such as getting in and out of chairs, beds and cars. This is especially important early in the disease.

Occupational therapists help a person with Parkinson’s manage everyday chores at home, at work or in the community. They play a key role in home safety, offering practical advice and devices to help with daily activities.

Speech and swallowing pathologists manages all aspects of communication, including nonverbal communication such as facial expression. A swallowing specialist can evaluate and treat problems using a combination of modified diet, altered swallowing techniques and exercises.

Social workers and counselors focus on the psychosocial and behavioral aspects of disease, including coping therapies and family needs.

Dieticians can help with unwanted weight loss or weight gain, constipation, vitamin deficiency and supplementation, protein-related medication interactions and dehydration. They may also be able to recommend dietary changes to reduce swallowing problems.

A neuropsychologist evaluates cognitive (thinking) skills by employing tests to identify and measure cognitive strengths and weaknesses.

Nursing management

Freezing: Environmental modification -- lines on the floor, rearranging furniture may help. Patients may also be instructed to visualize walking, count a walking cadence out loud (for example, "Step-2-3-4!")), or begin by stepping over a real or imaginary object.

Falls: Falls are a significant risk factor for nursing home placement. Falls occur not only in the context of freezing, but also from orthostatic hypotension, gait abnormalities, and postural instability. After a thorough evaluation, a physical therapist with experience in PD management
may recommend mobility aids such as a cane, walker, or motorized scooter. Balance training exercises from the earliest stages of the disease may be helpful.

**Nutrition:** It's important to have a well-balanced diet, with calcium and vitamin D for bone strength. A healthy diet with a lot of fiber is the best choice. Although protein can interfere with levodopa, patient can avoid the problem by taking the medicine about a half-hour before mealtime. To prevent nausea, instruct patient to take the medicine with crackers or ginger ale. Eating a high-fiber diet with lots of fluids can prevent constipation.

**Constipation** is a common autonomic dysfunction of PD seen early in the disease. It can be caused by the PD itself but secondarily can be the result of decreased movement, diet, fluid restriction, and other comorbid diseases. Exercise and increasing fiber, fruits, vegetables, and fluid intake can reduce constipation. If possible, discontinuing anticholinergic medications can be helpful. Stool softeners, laxatives, and enemas should be added only when necessary.

**Bladder dysfunction** can be neurogenic in nature, but issues of mobility, enlarged prostate in men, or prolapsed uterus in women can be contributory. Constipation can put additional pressure on the bladder and magnify the problem. Behavioral interventions such as a toileting schedule; reducing bladder irritants such as alcohol, spicy foods, caffeine, and aspartame; and improving contributing factors such as constipation can minimize bladder issues without medication intervention. Biofeedback also can be of benefit and is often offered through rehabilitation services such as physical therapy. Fluid restriction in the evening hours can also minimize nocturia and thus improve sleep habits.

**Orthostatic hypotension** can be related to decreased fluid and salt intake, a direct effect of PD, medication side effects, comorbid disease processes, and polypharmacy. Orthostatic hypotension can lead to safety issues and frequent falls. Maintaining a systolic blood pressure above 90 mm Hg is the goal. If appropriate, increasing salt and hydration can help. Salt can be increased with salt tablets 3-4 times/day or drinking a soda every day. Increasing the level of the head of the patient's bed by 4-6 inches, a leg-holding exercise before getting up from a supine position, compression stockings, abdominal splinting, and eating small frequent meals also can combat Orthostatic hypotension. Teaching the patient to avoid prolonged standing, limit exposure to heat, and eliminate alcohol can be useful. Evaluating the patient's medications and eliminating or reducing non-PD medication may be necessary. Sometimes patients need to be placed on medication such as fludrocortisone or midodrine to normalize blood pressure. Monitoring for supine hypertension is also important.

**Pain** is often an unrecognized symptom of PD; pain is frequently caused by rigidity and dystonia and responds favorably to dopaminergic therapy. Exercise programs to promote range of motion, flexibility, and movement can help reduce pain associated with PD.

**Erectile dysfunction, loss of libido, and anorgasmia** are thought to be a primary effect of PD and not related to medication. Contributing factors include depression, role changes by patient and caregiver, and perceptions of lost physical attractiveness. Because of embarrassment by both the patient and the healthcare provider, this issue is usually not discussed. Simple questions such as, "How is your intimate relationship with your spouse (or significant other)??"
can open the door comfortably for everyone. Urologic referral should be made to rule out other pathology. If the primary cause is found to be neurogenic in nature, sildenafil and similar products are often effective. Sexual counseling should also be considered, especially if secondary contributing factors are found.

**Support for Caregivers:** Caring for a person with Parkinson's can be challenging. As motor skills decline, simple tasks may become more difficult, but the Parkinson's patient may struggle to maintain independence. Both the medications and the disease itself can lead to mood changes. Support groups and online forums are available from the American Parkinson Disease Association, the National Parkinson Foundation, and the Parkinson's Disease Foundation.

**Caregiver and End-of-Life Issues**

Spouses are most often the primary caregiver for the person with PD. Caregiving in the later stages of the disease can present significant challenges and create substantial stress, for caregivers. Multiple factors contribute to the stress of caregiving in PD. These include: physical challenges, emotional challenges, and financial challenges. Because of the long duration of advanced PD, stress on the caregiver may be prolonged, and feelings of helplessness may increase. The risk of depression in this situation is significant. Cognitive changes and hallucinations increase the strain on caregivers and are a major risk factor for nursing home placement for the patient.

Many caregivers feel they don't have enough information about PD and state that having more information would reduce their feelings of uncertainty. Taking the extra time with caregivers to provide information, resources, and referrals to support groups and suggested reading materials can go a long way toward making their burden more manageable. Communication from the treatment team is especially important when the patient becomes cognitively impaired and cannot communicate his or her own needs effectively.

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**Web resources for Parkinson disease**


References


NCLEX Style questions

1. The physician ordered a new medication for a client with Parkinson’s disease. The nurse is not familiar with this medication. Prior to administering this medication the nurse should; (Select all that apply).
   
   a. Call the pharmacy to make sure the order dosage is correct.
   b. Assess the patient for drug allergies before giving medications.
   c. Ask a colleague to double-check the medication when giving.
   d. Look up information about the medication in the drug handbook.
   e. Document and administer the medication as ordered to the client.

2. The nurse has admitted a client with newly diagnosed Parkinson’s disease. While developing plan of care the nurse should focus on…
   
   a. Mostly on the prevention of disease progression and ability to perform daily activities.
   b. The management of the disease and the patient’s needs and preferences.
   c. A team approach to foster holistic care and reduce disability.
   d. Primarily on maintaining independence and enhancing safety.

3. A client with Parkinson’s disease has an order for occupational therapy. The nurse will accurately describe the role of the occupational therapist to the client as:
   
   a. The occupational therapist serve to help the patient address issues such as strength, endurance, movement control, flexibility, gait, balance, freezing and fall prevention.
   b. The occupational therapist play a key role in home safety, and help a person with Parkinson’s manage everyday chores at home, at work or in the community.
   c. The occupational therapist manages all aspects of communication, including nonverbal communication such as facial expression.
   d. The occupational therapist help with unwanted weight loss or weight gain, constipation, vitamin deficiency and supplementation, protein-related medication interactions and dehydration.

4. A client has been taking the maximum dose of Carbidopa-levodopa (Sinemet) for Parkinson’s disease, but is experiencing a worsening of symptoms and side effects. The nurse consults with the physician about these findings anticipating:
   
   a. An order to discontinue Sinemet for a week.
   b. An addition of protein supplements to the breakfast meal.
c. An addition of vitamin supplements to the drug therapy.
d. An addition of a cholinergic drug to the drug regimen.

5. A client with admitted with Parkinson’s disease said to the nurse “I hate not being able to get to work and for my wife having to tend to my personal needs.” What will be the best response by the nurse?

a. “I will be sure to speak to your wife about your feelings may be she will like to talk about it.”
b. “It is okay to feel like you are not contributing to the family at this time. You will be able to do that when you get better.”
c. “You took care of her and the family, now they will take care of you, no need to worry.”
d. “It must be frustrating for you to be dependent on your wife family because of your illness.”

6. The nurse is developing care plan for a client admitted with Parkinson’s disease. Based upon the cardinal manifestations of Parkinson’s disease (PD), which of these nursing diagnosis is most important to include?

a. Potential for aphasia related to mask-like facial appearance
b. Impaired gas exchange related to muscle weakness and rigidity.
c. Potential for incontinence related to bladder spasms
d. Potential for falls related to balance issues
e. Potential for confusion related to muscular degeneration

7. The nurse is providing medication instruction for a client newly diagnosed with Parkinson’s disease and started on Sinemet (carbidopa/levodopa). Which of the following should the nurse include in the client instruction? (Select all that apply).

a. To prevent nausea and vomiting take your medicine with all your meals.
b. You can take the medication crushed in small amount apple sauce or juice.
c. The medication can cause confusion and hallucinations when used for a long time.
d. While taking this medicine you will have no trouble with muscle rigidity and stiffness.
e. You should call your health care provider if you experience times where the Sinemet does not appear to be working as well as it did previously.
f. Get up slowly when getting out of bed or standing up from a chair to prevent lightheadedness, dizziness and fall.
8. The client who has been newly diagnosed with Parkinson’s disease asks the nurse what “Parlodel” (Bromocriptine) actually does when the nurse is preparing to give the client’s Parlodel. Which of these will be the nurse’s best response?

   a. “It is the most commonly prescribed drug for newly diagnosed Parkinson’s Disease clients.”
   b. “Your doctor will be arriving soon; I’ll put a note on your chart to ask the doctor to answer your question.”
   c. “Parlodel prevents the reuptake of dopamine and blocks cholinergic effects in the brain.”
   d. “Parlodel stops the breakdown of a chemical in the brain called dopamine.”
   e. “I’ll set the drug aside and contact the physician to be certain that it is the correct medication.”

9. The nurse is caring for a client with Parkinson's disease. To assist the client in minimizing the effects of hypokinesia, the nurse should encourage the client to schedule the most demanding physical activities at what times.

   a. Early in the morning, when the client's energy level is high.
   b. To coincide with the peak action of drug therapy.
   c. Immediately after a rest period.
   d. When family members or caregivers will be available to assist.

10. A client with Parkinson's disease needs a long time to complete her morning hygiene, but she becomes annoyed when the nurse offers assistance and refuses all help. Which action is the nurse's best initial response in this situation?

2. Tell the client firmly that she needs assistance and help her with her care.
3. Tell the client that she is being unrealistic about her abilities and must accept the fact that she needs help.
4. Suggest to the client that if she insists on self-care, she should at least modify her routine.
5. Praise the client for her desire to be independent and give her extra time and encouragement.

11. A client with Parkinson’s disease wants to know why he has to wear support stockings. Which of these is the most appropriate response by the nurse? “The stockings will

   a. Prevent slips and falls.”
b. Decrease muscle rigidity”
c. Promote venous return.”
d. Prevent muscular atrophy.”
e. Increase joint mobility.”

12. The nurse is caring for a patient with a history of Parkinson’s disease who recently started taking Comtan (entacapone). The nurse notes the patient’s urine has a brownish-orange discoloration. Which of the following actions should the nurse take next?

a. Note the assessment finding in the chart.
b. Push oral fluids client may be dehydrated.
c. Notify the physician.
d. Determine the patient’s current weight.
e. Ask the patient what he or she ate for breakfast.

13. Which statement indicates that the family member understood the nurse’s teaching about Parkinson’s disease?

a. I can never tell what s/he’s thinking – s/he hides behind a mask-like face.
b. S/he drools all the time just so I can’t take him/her out anywhere.
c. I think this disease makes him/her nervous – s/he perspires all the time.
d. I can offer smaller meals with bite-size portion and a liquid supplement.

14. A patient with suspected Parkinson's disease is being assessed by the nurse. The nurse will best assess for the presence of a tremor during which of this activities?

a. When the patient is resting
b. When the patient is preparing his or her meal tray to eat
c. When the patient is ambulating
d. When the patient is participating in occupational therapy

15. A patient with Parkinson's disease has had two recent episodes of aspiration pneumonia. The client is currently undergoing a swallowing evaluation. The nurse anticipate that the client’s nutritional needs should be met by which of these method?

a. Total parenteral nutrition (TPN)
b. Provision of a low-residue diet
c. Semisolid food with thickened liquids
d. Minced foods and a fluid restriction
e. Pureed diet with thin liquids though a straw.
16. An older adult has encouraged her husband to visit their primary care provider, stating that she is concerned that he may have Parkinson's disease. Which of the wife's descriptions of her husband's health and function is most suggestive of Parkinson's disease?

a. “Lately he seems to move far more slowly than he ever has in the past.”
b. “He often complains that his joints are terribly stiff when he wakes up in the morning.”
c. “He's forgotten the names of some people that we've known for years.”
d. “He's losing weight even though he has a ravenous appetite.”

17. The nurse is teaching the adult child of an 82 year old client diagnosed with Parkinson's disease who has difficulty sitting and standing. Which of the following statements by the adult child would indicate a correct understanding of the teaching?

a. “I will have her use of a bedpan for toileting as much as possible.”
b. “I will install a raised toilet seat in the bathroom for her use.”
c. “I will encourage her to sit quietly on the toilet every 2 hours.”
d. “I will help her follow the outlined bowel management program.”

18. The nurse identifies the nursing diagnosis of impaired physical mobility related to tremors and bradykinesia for a patient with Parkinson's disease. Which nursing intervention is most appropriate to assist safe ambulation?

a. Allow client to ambulate only with assistance
b. Teach client to step "over cracks" or rock side to side to initiate leg movement
c. Have client take small deliberate steps in a straight line directly in front of his feet
d. Teach client to slide the feet forward with each step, keeping feet in contact with the floor

19. The nurse had been describing the physiological basis for the symptoms of Parkinson’s disease to a client. Which of the following explanations for the symptoms of PD would be most accurate for the nurse to share with the client?

a. A viral infection triggers an autoimmune reaction in the nervous system.
b. Peripheral nerve compression is responsible
c. Antibodies against acetylcholine receptors impair neuromuscular transmission
d. Dopamine receptor decrease in the substantia nigra and Basal ganglia
20. A patient has been prescribed ropinirole (Requip). She states, “I don't know why they are giving me this medicine. I don't have restless leg syndrome.” What is the nurse's best response in teaching this patient with newly diagnosed Parkinson's disease about ropinirole (Requip)?

a. “You are mistaken; ropinirole is not used for restless leg syndrome.”
b. “You are right about ropinirole, but it is also used in early Parkinson's disease.”
c. “Your doctor must have written the prescription wrong. I will call her.”
d. “Ropinirole is used for restless leg syndrome and migraines, not parkinsonism.”

21. A patient with Parkinson's disease is being treated with selegiline (Eldepryl). This medication inhibits the metabolism of dopamine by monoamine oxidase. Which of the following foods should the patient be instructed to avoid?

a. Cheddar cheese and Polish sausage
b. Ham and rye bread
c. Roast beef and ginger
d. Whipped cream and pumpkin pie

22. An 80-year-old patient has been prescribed an anticholinergic agent for treatment of Parkinson-related symptoms. What patient education should be provided?

a. Avoid high environmental temperatures.
b. Anticholinergics increase mental alertness.
c. It is safe to take Sudafed for a cold.
d. You may experience urinary incontinence.

23. A patient has been prescribed an anticholinergic agent for treatment of Parkinson-related symptoms. What patient education should be provided?

a. Do not take any over-the-counter sleep aids.
b. Void before taking the medication.
c. Move to a warm climate to decrease symptoms.
d. Enroll in an exercise class at the senior center.

24. A home care nurse is making an initial visit to a 68-year-old man. The nurse finds the man tearful and emotionally withdrawn. Even though the man lives alone and has no family, he has been managing well at home until now. What would be the most appropriate action for the nurse to take?
a. Reassess the patient's psychosocial status and make the necessary referrals
b. Have the patient volunteer in the community for social contact
c. Arrange for the patient to be reassessed by his social worker
d. Encourage the patient to focus on the positive aspects of his life

25. The nurse is providing care for an older adult man whose diagnosis of dementia has recently led to urinary incontinence. When planning this patient's care, what intervention should the nurse avoid?
   a. Scheduled toileting
   b. Indwelling catheter
   c. External condom catheter
   d. Incontinence pads
Rationale for NCLEX style questions.

1. **Rationale:** B, C, & D

2. **Rationale:** B

3. **Rationale:** (B). Occupational therapists help a person with Parkinson’s manage everyday chores at home, at work or in the community. They play a key role in home safety, offering practical advice and devices to help with daily activities.

4. **Rationale:** A.

5. **Rationale:** (D) The nurse is acknowledging the patient’s feelings. With the (D) statement the nurse helps the patient to know that his feelings are understood and accepted and encouraged him to continue expressing them. When a patient talks about something that is upsetting to him or expresses a complaint or criticism, the nurse can convey acceptance by acknowledging the feelings he is expressing without agreeing or disagreeing with them. By sympathetically recognizing that it must be difficult or embarrassing or frightening or frustrating, etc. to feel as the patient does, she does not pass judgment on the thought or feeling itself.

6. **Rationale:** (D) A client with PD disease has impaired physical mobility due to muscle rigidity and postural impairment which increases the risk for falls in the client. Improving mobility and decreasing muscle rigidity through, proper medication management, exercise program special walking techniques (Such as wide gait). Patient with PD may have communication problems due to frozen facial muscles making smiling and speaking difficult. PD also causes client’s mentation to change, over time, which may lead to an inability to communicate. A mask-like facial appearance is a result of striated muscle deterioration. Urinary hesitancy or frequency may occur.

7. **Rationale:** (B, C, E, F). The client should be instructed to take the medication on empty stomach about 30 to 60 minutes before meals. This allows the Sinemet to be quickly absorbed before the food can interfere. Avoid taking the medicine with protein rich foods which will result in decreased therapeutic effect of the medicine. If the client has trouble with nausea they should take the medicine with crackers and/or ginger ale or non-protein food. Prolong use can lead to confusion and hallucination, Patient may feel light-headed or dizzy while taking SINEMET because the blood pressure is falling suddenly. Standing up slowly, especially when getting out of bed or chairs, will help the body get used to the change in position and blood pressure.

8. **Rationale:** (D) Bromocriptine (Parlodel) inhibits the breakdown of dopamine and is used to delay progression of the disease. Nurses have the responsibility to know the action of each drug nurses administer. Parlodel for a client with PD is appropriate, and the client
has not indicated an unwillingness to take the medication. Hence questioning the order is inappropriate.

9. Rationale: (B). Demanding physical activity should be performed during the peak action of drug therapy. Clients should be encouraged to maintain independence in self-care activities to the greatest extent possible. Although some clients may have more energy in the morning or after rest, tremors are managed with drug therapy.

10. Rationale: D.

11. Rationale: (C.). stockings to improve blood flow in the lower extremities and is used in patients with Parkinson’s disease to promote venous return.

12. Rationale: (A). This is a normal finding for patients taking entacapone. There is no need to take a specific action, and the assessments listed will not help determine the presence of other side effects or concerns.

13. Rationale: (D.)

14. Rationale: (A). The tremor is present while the patient is at rest; it increases when the patient is walking, concentrating, or feeling anxious. Resting tremor characteristically disappears with purposeful movement, but is evident when the extremities are motionless. Consequently, the nurse should assess for the presence of a tremor when the patient is not performing deliberate actions.

15. Rationale: (C). A semisolid diet with thick liquids is easier for a patient with swallowing difficulties to consume than is a solid diet. Low-residue foods and fluid restriction are unnecessary and counterproductive to the patient's nutritional status. The patient's status does not warrant TPN. The use of straw will increase the aspiration risk.

16. Rationale: (A). Parkinson’s disease is characterized by bradykinesia. It does not manifest as memory loss, increased appetite, or joint stiffness.

17. Rationale: (B). A raised toilet seat is useful, because the patient has difficulty in moving from a standing to a sitting position. Sitting quietly on the toilet every 2 hours will not aid in getting from the sitting to standing position; neither will following the outlined bowel program.

18. Rationale: (C.)

19. Rationale: (D). PD disease is characterized by depletion of dopamine in the substantia nigra leading to the onset of symptoms of PD. Option A describes Gillian Barre syndrome, B is nonspecific, and C describes Myasthenia gravis.
20. Rationale: B. Ropinirole (Requip) is used for restless leg syndrome and in the beginning and advanced stages of Parkinson's disease. The statement, “You are mistaken; ropinirole is not used for restless leg syndrome” is incorrect. It is used for restless leg syndrome. The statement, “Your doctor must have written the prescription wrong” is incorrect. Ropinirole is used for restless leg syndrome, not for migraine headaches.

21. Rationale: A. Cheddar cheese and Polish sausage are high in tyramine, which produces a life-threatening reaction of hypertension when combined with selegiline. A diet that includes ham and rye bread will not cause a hypertensive reaction with selegiline. A diet that includes roast beef and ginger will not cause a hypertensive reaction with selegiline. A diet that includes whipped cream and pumpkin pie will not cause a hypertensive reaction with selegiline.

22. Rationale: A. Anticholinergic drugs decrease sweating and may cause heat stroke. The patient should be instructed to avoid high environmental temperatures. Anticholinergic agents will decrease mental alertness. Sudafed will produce anticholinergic effects and should not be administered. Anticholinergic agents produce urinary retention, not incontinence.

23. Rationale: B. To avoid urinary retention associated with the administration of an anticholinergic agent, the patient should be instructed to void before taking the medication. The patient should be instructed to avoid the use of over-the-counter sleep aids. The patient should avoid high environmental temperatures. The patient should avoid strenuous activity and should not enroll in an exercise class.

24. Rationale: A. The patient is exhibiting signs of depression and should be reassessed and a referral made as necessary. Patients with chronic illness are at an increased risk of depression. It would be simplistic to arrange for him to volunteer or focus on the positive. Social work may or may not be needed; assessment should precede such a referral.

25. Rationale: B. Indwelling catheters are avoided if at all possible because of the high incidence of urinary tract infections with their use. Intermittent self-catheterization is an appropriate alternative for managing reflex incontinence, urinary retention, and overflow incontinence related to an overdistended bladder. External catheters (condom catheters) and leg bags to collect spontaneous voiding are useful for male patients with reflex or total incontinence. Incontinence pads should be used as a last resort because they only manage, rather than solve, the incontinence.