

## CHAPTER 2 IS THE OLDER ADULT AT INCREASED RISK OF UNSAFE DRIVING?

### KEY POINTS

- When taking the older adult's history and reviewing the medical record, be alert to "red flags," which include any medical conditions, health symptoms (e.g., pain, fatigue), visual, cognitive, or motor changes, medications, functional decline, or symptoms or signs that can affect driving skills and safety.
- Do not make assumptions about whether an older adult is driving. Always be sure to ask about this key instrumental activity of daily living.
- Age alone is not a red flag for driving safety. The media often emphasizes age when an older driver is involved in an injurious crash.
- Health care providers should take the approach of optimizing safe driving rather than simply stopping older adults from driving.

**Mr. Phillips, an 82-year-old man** with a history of hypertension, congestive heart failure, atrial fibrillation, macular degeneration, and osteoarthritis, comes to your office for a routine check-up. Mr. Phillips ambulates with a wide-based ataxic gait, uses a walker, and has impaired standing balance. He is unable to stand from the exam chair without multiple attempts and use of his arms, and he reports feeling temporarily lightheaded on standing. He is no longer able to read newspaper print and tells you he avoids driving at night and only goes short distances to run errands, get to appointments, and meet weekly with his bridge club.

**Mrs. Bales, a 90-year-old woman**, lives in a continuing care retirement community with her 92-year-old husband for whom she is the primary caregiver because of his Parkinson disease. Her past medical history includes early macular degeneration, degenerative joint disease, and hypertension. She has decreased range of motion in her neck and walks without an assistive device but with a wide-based gait. She drinks a moderate amount of alcohol daily and was recently started on oxycodone for chronic pain.

This chapter discusses the first steps of the Plan for Older Drivers' Safety (PODS) and, in particular, provides a strategy for answering the question "Is the older adult at increased risk of unsafe driving?" This part of the evaluation process includes clinical observation of the older adult, identifying red flags such as medical conditions, including cognitive and physical conditions, symptoms associated with chronic illnesses, and medications that may impair safe driving and inquiring about new-onset driving behaviors that may indicate declining traffic skills. The goal of the assessment is to facilitate driving safety among older adults and assure that those who can drive safely are helped to do so for as long as possible.

### STEPS TO ANSWER THIS QUESTION

#### Observe the older adult throughout the encounter.

Careful observation is often an important step in diagnosis. During all patient encounters, clinicians should observe the older adult and be alert to:

- Sensory impairment such as decreased vision, hearing, or sensation in the extremities

- Inattention or loss of insight regarding personal care (e.g., poor hygiene and grooming)
- Impaired ambulation (e.g., difficulty walking or getting into and out of chairs)
- Difficulty with way finding (e.g., getting to or out of the office)
- Impaired attention, memory, language expression, or comprehension
- Difficulties or lack of insight related to managing medical encounters, such as missed appointments, repeated phone calls for the same issues, or appearing on the wrong day

In the example above, Mr. Phillips has difficulty with balance and strength as revealed by his inability to get up from the chair without multiple tries and his wide-based gait. Moreover, he has visual changes such that he cannot read normal size print materials. This raises a question as to whether he can operate vehicle foot pedals properly or see well enough to both drive and find his way safely. His physical limitations may not preclude driving, but they may be indicators that more assessment is indicated.

**Be alert to conditions in the older adult's medical history, examine the current list of medications, and perform a comprehensive review of systems.**

During an interview of the older driver, clinicians should be alert to "red flags," i.e., any medical condition, medication, or symptom that can affect driving skills, due to acute changes or chronic functional deficits (see Chapter 9). Health symptoms have been noted to be more strongly associated with driving difficulties than health conditions.<sup>1</sup> For example, Mr. Phillips (introduced in previous chapter) presents with lightheadedness associated with atrial fibrillation. Symptoms of dizziness should be considered as a red flag, and Mr. Phillips should be counseled to cease driving until his symptoms

are diagnosed, treated, and resolved. Significant pain and associated limitations in function seen with degenerative joint disease and use of opioids for

**Table 2.1 - Clinical Risk Factors for Impaired Driving**

Risk Factor	Signs and Symptoms
<b>Physical capabilities</b>	<ul style="list-style-type: none"> <li>■ Impaired balance</li> <li>■ Vision and/or hearing impairment (not hearing emergency sirens or horns honking, not seeing street signs)</li> <li>■ Functional impairment, such as sensory or range of motion (particularly ankle) with regard to use of gas or brake pedals</li> <li>■ Decreased ability to turn the head to fully visualize an area</li> <li>■ Slow response to visual or auditory cues</li> <li>■ Problems with reflexes (not reacting quickly when there is a need to brake suddenly)</li> </ul>
<b>Cognitive ability</b>	<ul style="list-style-type: none"> <li>■ Decreased short-term memory</li> <li>■ Decreased or impaired way finding</li> <li>■ Easily distracted</li> <li>■ Inability to learn new information quickly</li> <li>■ Inability to recognize unsafe situations</li> <li>■ Confusion over names and dates</li> <li>■ Difficulty with instrumental activities of daily living</li> </ul>
<b>Driving ability</b>	<ul style="list-style-type: none"> <li>■ Not using turn signals appropriately</li> <li>■ Difficulty turning the wheel and making turns</li> <li>■ Difficulty staying in the correct driving lane</li> <li>■ Difficulty judging the space between cars or upcoming exits</li> <li>■ Hitting curbs when parking or backing up</li> <li>■ Stopping in traffic inappropriately</li> <li>■ Not following stop signs, yield signs, traffic lights, etc.</li> <li>■ Not noticing workmen or activity on the side of the road</li> <li>■ Inappropriate speeds for the weather/driving conditions</li> </ul> <p>History of traffic violations, minor crashes, or warnings</p>

pain management, such as those noted with Mrs. Bales, should also be considered “red flags.” Other conditions may impact safety and/or require training to use compensatory techniques when driving, e.g., limited range of motion in the neck. Acute or chronic pain can also be distracting and make it unsafe for older adults to drive. Many factors can put individuals at risk of unsafe driving and should be explored during office visits (Table 2.1).

Most older adults have at least one chronic medical condition and many have multiple conditions, the most common including arthritis, hypertension, hearing impairments, heart disease, cataracts, dizziness, orthopedic impairments, and diabetes.<sup>2</sup> The impact of multiple comorbidities is not well known. Some of these conditions have been associated with driving impairment by virtue of both their symptoms and their treatments (e.g., arthritis and pain and fatigue; medication adverse effects) that can influence driving safety. These conditions will be discussed in more detail in subsequent chapters, including a reference list of medical conditions and medications that may affect driving in Chapter 9, with some of the more common chronic conditions noted below in Table 2.3. Chronic illness and associated symptoms should be acknowledged and addressed so that driving, in some situations, can be safely continued.

Older adults generally take more medications than their younger counterparts and are more susceptible to adverse effects. The American Geriatrics Society Beers Criteria<sup>®</sup> for potentially inappropriate medication use in older adults is a useful tool for screening medication lists.<sup>3</sup> Whenever medication is prescribed or the dosage of a current medication is changed, it is important to inform the older adult of potential effects or drug-drug interactions that might affect driving safety. Adverse effects, such as drowsiness, confusion, dizziness,

or nausea, can impact the ability to concentrate and drive safely. Concern may be heightened in the face of already-present underlying concerns about visuospatial processing speed, cognition, or functional changes (e.g., the Trails B test [see Chapters 3 and 4]), slow response time, and decreased attention.

The review of systems can reveal symptoms that may interfere with driving ability. For example, pain, fatigue, episodes in which there has been a loss of consciousness, confusion, falling asleep while driving, feelings of faintness, memory loss, visual impairment, numbness or tingling in extremities, history of falls, and muscle weakness (e.g., difficulty getting up from a chair) all have the potential to affect driving safety.

The clinical team should not make assumptions about whether an older adult is driving and should always be sure to ask about this important activity of daily living. Sometimes, older drivers themselves or caregivers may raise concerns. If the older adult or his or her caregiver asks your opinion about whether the individual is safe to drive, any concerns that have been noted should be explored. Has the older adult had any recent crashes, near-crashes, or citations? Is he or she feeling uncomfortable or unsafe driving? A list of specific driving behaviors that could indicate concerns for safety are found in the Fitness to Drive Measure (freely available online).<sup>4</sup> Clinicians should encourage caregivers to monitor and observe skills of the older adult driver in real-world traffic situations, with full disclosure and permission from the older driver. Concern should be noted if caregivers will not drive with the individual or let others drive with him or her. If the older adult is living in a retirement community (or continuing care retirement community, assisted living, etc.), it may be helpful to obtain collateral history from other observers about whether they

have noticed any driving behaviors that might indicate unsafe driving (e.g., inappropriate speeds, not stopping at stop signs, not slowing over curb bumps, bumping into/scraping other cars).

Age alone is not a red flag! Unfortunately, the media often emphasizes age when an older driver is involved in an injurious crash. This “ageism” is a well-known phenomenon in U.S. society.<sup>5</sup> Although many people experience a decline in vision, cognition, or motor skills as they get older, these changes occur at different rates, and older adults experience functional changes to different degrees. Further, older adults have different perceptions of their own driving ability and perceptions of how others perceive their driving ability. These beliefs are related to self-regulatory driving ability.<sup>1</sup> The focus should be on functional abilities (cognitive and physical), symptoms, and medical fitness to

drive versus on age per se. Identifying problems in these areas and managing them appropriately is one of the ways in which the clinical team may be able to help older adults continue to drive safely rather than simply stopping them from driving.<sup>6</sup>

**Inquire about driving during the social history and health risk assessment.**

A health risk assessment is a series of questions intended to identify potential health and safety hazards in the older adult’s behaviors, lifestyle, and living environment (Table 2.2). The health risk assessment is tailored to the older adult and generally focuses on physical activity, falls, drinking (alcohol), medication management, sleep, nutrition, and driving. Relevant questions about driving as part of the health risk assessment are shown in Table 2.2. Alternatively, more open-ended questions

**Table 2.2 - Questions About Driving**

<b>Exploratory Questions</b>	
<p>How did you get here today?</p> <p>Do you drive?</p> <p>How much do you drive?</p> <p>Do you drive to the store? hairdresser? bank?</p> <p>Do you drive at night?</p> <p>Have you lost any confidence in your ability to be a safe driver?</p> <p>Have others expressed concern about your driving?</p> <p>What would you do if you had to stop driving?</p> <p>Are you comfortable when seated in your car?</p> <p>Tell me about your ability to see signs when driving? To manage the steering wheel? To manage the foot pedals? To visualize the traffic lights and signs?</p> <p>Do you often get lost while driving?</p> <p>Have you received any traffic violations or warnings in the past 2 years?</p> <p>Have you had any crashes or near-crashes in the past 2 years?</p>	<p><b>Questions for caregivers if concerns are raised:</b></p> <p>How often do you believe ____ drives?</p> <p>Have you had the opportunity to ride with ____ in the past month?</p> <p>Do you feel safe in the car when riding with ____?</p> <p>Do you have any concerns about ____’s driving ability?</p> <p>If a patient presents a form from the licensing agency, the clinician should ask why they are being asked to submit the form.</p>
<p><b>Health Risk Assessment Questions</b></p> <ul style="list-style-type: none"> <li>■ Physical activity and diet history</li> <li>■ Daily alcohol intake</li> <li>■ Daily medication management concerns or use of sedating medications</li> <li>■ History of falls</li> <li>■ Use of seat belts</li> <li>■ Sleep history</li> </ul>	

can be asked such as: "Tell me how you obtain your groceries," "How do you get to the hairdresser?" or "What do you do during the course of a routine day?" These can then lead into more specific questions about driving and/or alternative options for transportation.

If the older adult drives, then his or her driving safety should be addressed if red flags are raised. In addition, whenever there is any change in a medical condition or medication that could impact driving, the impact on driving safety should be considered. For example, Mrs. Bales should be cautioned regarding driving because of starting on a narcotic for pain management, and she should be encouraged to initiate a short driving-free period while she evaluates the impact of the new medication on her driving skills.

In contrast, for chronic medical conditions, driving safety is addressed by formally assessing the functions important for driving (see Chapter 3). Chronic medical conditions and their associated symptoms should be considered when evaluating driving ability and safety. For example, an older adult with congestive heart failure may have an acute exacerbation with increased shortness of breath, fatigue, and difficulty concentrating. The exacerbation of the heart failure can result in the need for increased use of diuretics and, therefore, risk of dizziness, fatigue, or electrolyte imbalance. This individual might not be safe to drive and should be counseled to avoid driving until the symptoms of heart failure and the adverse effects from medication management have resolved. Ongoing evaluation after stabilization is needed. The clinician should also recommend formal assessment of function as described in Chapters 3 and 4 if the older adult shows any signs of chronic functional decline. (For more complete recommendations on medical conditions (e.g.,

diabetes) and medications that may affect driving, see Chapter 9.)

If the older adult does not currently drive, ask if he or she ever drove and what the reason was for stopping. If the older adult voluntarily stopped driving because of medical reasons that are potentially treatable, it may be possible to help him or her return to safe driving. In this case, formal assessment of function can be performed to identify specific areas of concern and serve as a baseline to monitor the individual's improvement with treatment. Referral to a driver rehabilitation specialist in these cases is strongly encouraged (see Chapter 5).

When exploring driving ability, it is very useful to also speak with a caregiver to confirm what the older adult has stated. As noted above, if the older adult lives in a retirement community or continuing care retirement community, the staff or colleagues and friends that have driven with the individual may, with permission, also be able to provide invaluable information because they have had the opportunity to observe the individual's driving activities, techniques, and safety.

If caregivers are particularly concerned, it may be helpful to have them review the Fitness-to-Drive Screening Measure (<http://fitnesstodrive.php.ufl.edu/us/>). These questions include situations such as making left-hand turns, hazard detection, and lane changes and classify the driver as being at-risk, routine, or accomplished. This can help to start a conversation about driving safety.

### **Understand the older adult's mobility needs.**

Asking about the older adult's mobility needs and encouraging him or her to begin exploring alternative transportation options before it becomes imperative to stop driving is advised. Resources such as the free program called CarFit ([---

22](http://www.</a></p></div><div data-bbox=)

car-fit.org) can help optimize the “fit” of the car to the individual to ensure that components like side and rearview mirrors are properly adjusted and that the seatbelt fits properly. When a diagnosis is encountered that may lead to the need for adaptive equipment or driving cessation, the clinician should advise the older adult of the potential impact on driving. For example, an older adult with multiple sclerosis could be advised that hand controls might be necessary in the future. Without ongoing discussion, older adults who have not planned for any forms of alternative transportation may feel that they have no choice but to continue driving, increasing their likelihood of continuing to drive after they may have lost the capacity to do so. Even if alternative transportation options are not needed at this point, it is wise for older adults to plan ahead in case it becomes necessary. These are difficult conversations to have, and clinical team members should remember to be respectful and sensitive knowing that driving is often an integral part of independence. Some techniques include giving specific examples of the reasons for the discussion rather than generalizations, and noting, for example, if the older adult is having a harder time turning his or her head than previously. Explaining that this can make visualization problematic is likely to be more helpful than just stating that the older adult can't drive anymore. Further, the clinical team member should make sure to help find alternatives to driving, such as recommending the use of taxi services or transportation network companies such as Uber or Lyft. The older adult may be so used to driving that he or she has never considered alternatives.

Some questions to use to initiate this conversation using the Hartford “We Need to Talk” discussion materials<sup>7</sup> include:

- How do you usually get to shopping or health care appointments?

- If your car ever broke down, how would you get around? Is there anyone who can give you a ride? Can you use public transportation, such as a bus or train? Does your community offer a shuttle service or volunteer driver service? Have you heard of or ever used a transportation network companies such as Uber or Lyft?
- Are there walkable options for groceries, medications, or other activities and services?

It can also be useful to explore the cost/benefit of driving (such as car maintenance and insurance) versus using a taxi service, a transportation network company, or other type of public or community transportation.

Older adults should be encouraged to plan a safety net of transportation options. It can be helpful to link independent mobility to clinical concern for the older adult's well-being with phrases such as “Mobility is very important for physical and emotional health. If you were ever unable to drive for any reason, I'd want to be certain that you could still make it to your appointments, pick up your medications, go grocery shopping, and visit your friends.”

Sources of educational materials on alternatives to driving are listed in Appendix B and include resources from the National Aging and Disability Transportation Center.<sup>8</sup> Other resources are available through AARP (<https://www.aarp.org/auto/driver-safety/driving-tips/>) and the University of Michigan Transportation Research Institute ([www.umtri.umich.edu/critical-issues/senior-mobility](http://www.umtri.umich.edu/critical-issues/senior-mobility)).<sup>9</sup> If an older driver must stop driving, the transition will be less traumatic if he or she has already created a transportation plan. In addition, the handout *Getting By Without Driving, or Transportation Options for Older Adults* can help the older adult get started (Appendix B). Useful options such as Go Go Grandparent (<https://gogograndparent>.

com/) may be available and can be used for direct transportation to appointments or activities, as well as to get groceries delivered.

### **Counseling Older Adult Drivers in the Inpatient Setting**

When caring for older adults in the acute hospital setting, it is critical to use this opportunity to consider if the individual is currently safe to drive.<sup>10</sup> Discharge from acute care is a good time to review how the individual will get medications and groceries and to their medical appointments. Counseling may include recommendations for temporary or permanent driving cessation or for driving assessment and rehabilitation when the individual's condition has stabilized. Such recommendations are intended to promote safety and, if possible, help the older adult develop a transportation plan during the recovery process and, as appropriate, work toward regaining his or her ability to drive. Case managers may be able to assist with this process. The transportation plan should be included in the discharge summary that goes to the rehabilitation/subacute setting and/or to the older adult's primary care provider.

### **RED FLAGS FOR FURTHER ASSESSMENT**

#### **Older Adult Driver's or Caregiver's Concern**

Regardless of the setting of care, older adult drivers and their caregivers may express concerns about driving safety. If so, the cause of concern should be investigated, specifically if there have been recent motor vehicle crashes, near-crashes, traffic tickets, instances of becoming lost, trouble making sudden lane changes, trouble with left hand turns, drifting into other lanes, braking or accelerating suddenly without reason, failing to use the turn signal, keeping the signal on without changing lanes, or if there is poor night vision, forgetfulness, or confusion. Function should be evaluated using

the Clinical Assessment of Driving Related Skills (CADReS) tests (Chapters 3 and 4).

#### **Acute Events**

Any acute health event, whether requiring hospitalization or not, is a red flag for immediate assessment of driving safety. If the older adult has been hospitalized, it is particularly important to counsel him or her as well as caregivers on driving safety issues. As noted above, acute disease exacerbations can serve as an opportunity to address, or readdress, driving concerns. As a general recommendation, older adults should cease driving after an acute event until their primary care provider indicates they are able to drive again. This is particularly important after any of the following common acute events or associated treatments.

- Acute myocardial infarction
- Acute stroke or other traumatic brain injury
- Arrhythmia (e.g., atrial fibrillation, bradycardia)
- Lightheadedness, dizziness
- Orthostatic hypotension
- Syncope or presyncope
- Vertigo
- Seizure
- Surgery
- Delirium from any cause
- Newly prescribed sedating medications or those that can cause confusion or dizziness
- Acute psychiatric diseases impairing cognitive function or decision making

#### **Chronic Medical Conditions**

Older adults may require focused assessments to determine the impact of the following chronic medical conditions on their level of function (detailed information in Chapter 9).

**Table 2.3 - Chronic Medical Conditions that May Impact Driving**

Medical Condition	Examples
<b>Diseases/ conditions affecting vision</b>	<ul style="list-style-type: none"> <li>■ Cataracts</li> <li>■ Diabetic retinopathy</li> <li>■ Macular degeneration</li> <li>■ Glaucoma</li> <li>■ Retinitis pigmentosa</li> <li>■ Field cuts</li> <li>■ Low visual acuity even after correction</li> </ul>
<b>Cardiovascular disease, especially when associated with presyncope, syncope, or cognitive deficits</b>	<ul style="list-style-type: none"> <li>■ Unstable coronary syndrome</li> <li>■ Arrhythmias</li> <li>■ Palpitations</li> <li>■ Congestive heart failure</li> <li>■ Hypertrophic obstructive cardiomyopathy</li> <li>■ Valvular disease</li> </ul>
<b>Neurologic disease</b>	<ul style="list-style-type: none"> <li>■ Dementia</li> <li>■ Multiple sclerosis</li> <li>■ Parkinson disease</li> <li>■ Peripheral neuropathy</li> <li>■ Brain injury</li> <li>■ Spinal cord injury</li> </ul>
<b>Psychiatric disease</b>	<ul style="list-style-type: none"> <li>■ Mood disorders</li> <li>■ Depression</li> <li>■ Anxiety disorders</li> <li>■ Psychotic illness</li> <li>■ Personality disorders</li> <li>■ Alcohol or other substance abuse</li> </ul>
<b>Metabolic disease</b>	<ul style="list-style-type: none"> <li>■ Type 1 and type 2 diabetes mellitus (especially with hypoglycemic attacks or severe swings in blood glucose)</li> <li>■ Hypothyroidism</li> </ul>
<b>Musculoskeletal disabilities</b>	<ul style="list-style-type: none"> <li>■ Arthritis and foot abnormalities</li> <li>■ Contractures and decreased range of motion</li> <li>■ Inflammation</li> <li>■ Pain</li> </ul>
<b>Respiratory disease</b>	<ul style="list-style-type: none"> <li>■ Chronic obstructive pulmonary disease</li> <li>■ Obstructive sleep apnea</li> </ul>
<b>Chronic renal failure</b>	<ul style="list-style-type: none"> <li>■ End stage renal disease</li> <li>■ Hemodialysis</li> </ul>
<b>Cancer and chemotherapy</b>	<ul style="list-style-type: none"> <li>■ Weakness and extreme fatigue</li> <li>■ Medication side effects</li> </ul>
<b>Insomnia</b>	<ul style="list-style-type: none"> <li>■ Sleep apnea</li> <li>■ Restless leg syndrome</li> <li>■ Anxiety/depression/pain contributing to insomnia</li> </ul>

**Medications**

Many nonprescription and prescription medications have the potential to impair driving ability, either alone or in combination with other drugs. Combinations of drugs may affect drug metabolism and excretion, and dosages may need to be adjusted accordingly. In addition, clinicians should always ask about alcohol and marijuana use and timing of intake (for more information on each medication class that may affect driving, see Chapter 9). Medications with strong potential to affect driving ability include:

- Anticholinergics
- Anticonvulsants
- Antidepressants
- Antiemetics
- Antihypertensives
- Antiparkinsonian agents
- Antipsychotics
- Benzodiazepines and other sedatives/ anxiolytics
- Hypoglycemic agents
- Muscle relaxants
- Narcotic analgesics
- Stimulants
- Hypnotics
- Marijuana
- Alcohol
- Over-the-counter agents with anticholinergic adverse effects such as sleeping agents or allergy/cold medications, which are often first-generation antihistamines

### Review of Systems

The review of systems can reveal symptoms or conditions that may impair driving performance. Symptoms associated with acute and chronic medical problems are critically important red flags and should be carefully explored.

### Assessment and Plan

Clinicians should consider screening at-risk older adults using red flags and identifying common signs, symptoms, and medical conditions associated with impairment of driving safety in every clinical setting. When formulating a diagnosis and treatment plan for older adults, driving safety should be addressed whenever needed. Identification of risk early on may facilitate primary prevention and interventions to prevent the loss of driving ability. Ongoing monitoring of chronic illness may facilitate secondary prevention efforts to rehabilitate the loss of driving skills and attempts to restore those skills. Red flag indicators and acute events may signal that loss of driving skills is irreversible, and tertiary prevention should include recommending alternatives to driving to avoid harm to the older adult and others. It is also critically important to recognize that some older adults may have impaired insight with regard to their driving safety, and self-reports should be confirmed with caregivers or others who may be familiar with the older adult's driving ability.<sup>11</sup> In summary, assessment of driving safety can and should be routinely integrated into the care plan when:

- A new diagnosis or change occurs in any condition that has been associated with impaired driving
- A new medication is prescribed, or the dosage of a current medication is changed
- A change in functional abilities is reported
- As part of an annual wellness visit

- Following a care transition (e.g., acute care to subacute care or home setting; home setting to a continuing care retirement community or assisted living)

**Table 2.4 - Organ Systems and Symptoms**

Organ System	"Red Flag" Symptoms
<b>General</b>	<ul style="list-style-type: none"> <li>■ Fatigue</li> <li>■ Weakness</li> <li>■ Dizziness</li> <li>■ Pain</li> </ul>
<b>Head, ears, eyes, nose, throat (HEENT)</b>	<ul style="list-style-type: none"> <li>■ Headache</li> <li>■ Double vision</li> <li>■ Visual changes</li> <li>■ Vertigo</li> <li>■ Change in ability to read</li> <li>■ Change in visual acuity</li> <li>■ Decreased hearing</li> </ul>
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>■ Shortness of breath</li> <li>■ Use of oxygen</li> </ul>
<b>Cardiac</b>	<ul style="list-style-type: none"> <li>■ Chest pain</li> <li>■ Dyspnea on exertion</li> <li>■ Palpitations</li> <li>■ Sudden loss of consciousness</li> <li>■ Increased swelling in the legs</li> </ul>
<b>Musculo-skeletal</b>	<ul style="list-style-type: none"> <li>■ Muscle weakness</li> <li>■ Pain</li> <li>■ Joint stiffness</li> <li>■ Decreased range of motion</li> </ul>
<b>Neurologic</b>	<ul style="list-style-type: none"> <li>■ Loss of consciousness</li> <li>■ Fainting</li> <li>■ Seizures</li> <li>■ Weakness</li> <li>■ Paralysis</li> <li>■ Tremors</li> <li>■ Loss of sensation</li> <li>■ Numbness</li> <li>■ Tingling</li> <li>■ Changes in memory and ability to recall recent events, or difficulty with word finding, way finding, decision making, or concentration</li> <li>■ Changes in psychological stability or orientation: confusion, psychosis, mania, disorientation</li> </ul>
<b>Psychiatric</b>	<ul style="list-style-type: none"> <li>■ Depression</li> <li>■ Anxiety</li> <li>■ Delirium</li> <li>■ Hallucinations</li> <li>■ Delusions</li> <li>■ Psychosis</li> </ul>

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