

Therapy's Least Favorite Question: **WHEN** can I drive again?!?

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Objectives

1. Upon completion, therapist will be able to identify appropriate risk factors as barriers or appropriate facilitator skills related to driving performance.
2. Upon completion, therapist will be able to indicate one skill each discipline can identify in order to discuss a patient's driving skill.
3. Upon completion, therapist will be able to determine if medical clearance from a medical provider is sufficient or if a comprehensive driving evaluation is most appropriate.

Impact of Inability to Drive

- Adults consider driving vital to their independence
- Out-of-home activity affects well being and physical status
- Higher level of social interconnectedness or social integration is linked to lower mortality risk.
- 89% of transportation is in private vehicles for the population of 65 years +
- Suburbanization removes access to transit options
- Reduced socialization linked to increased depression

Roles & Responsibilities

- **Bureau of Motor Vehicles**
 - Establish and Enforce Laws
 - Conduct driver license examinations
 - Determine license conditions, restrictions, etc.



Roles & Responsibilities

- **Physicians**
 - Provide medical history
 - Complete Physician Form 2310 for BMV
 - Refer to DRS/CDRS for evaluation or training determination



Roles & Responsibilities

- **Therapists**

- Address basics:
- General community mobility: navigation & way-finding
- Consider cognitive barrier(s) or visual impairment(s)
- Advise or begin discussion pertaining to driving



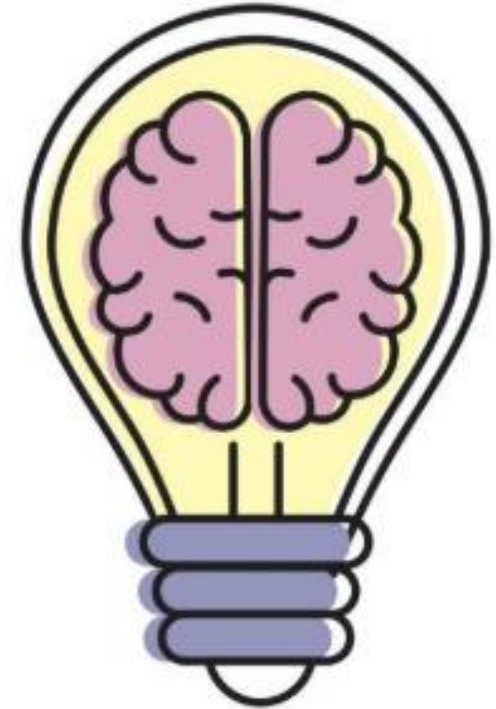
Roles & Responsibilities

- **Driving Rehabilitation or Evaluation Process**
 - Conduct driving assessments
 - Provide documentation
 - Provide training
 - Provide adaptive equipment inspection for vehicles following modification



Medical Considerations

- Neurologically Stable
 - Ex: Seizure free
- Medications
 - Prescriptions vs. Polypharmacy
- Progressive
 - Prognosis vs. Diagnosis
 - Acute vs. Chronic
 - Exacerbations vs. Stable



This can often require a written statement from a physician or medical professional.

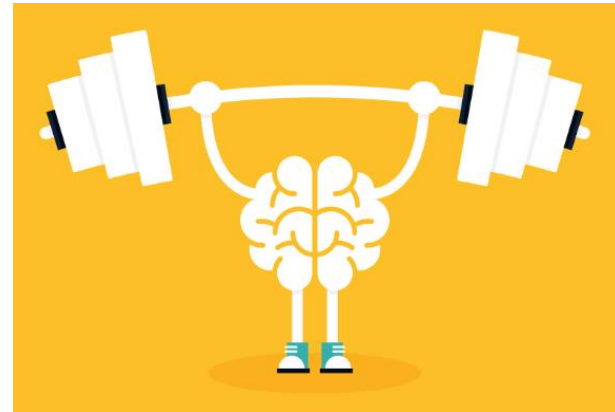
Physical Considerations



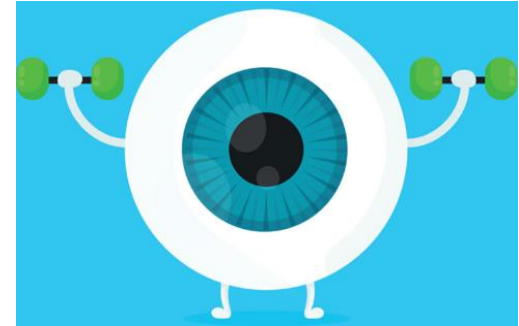
- Core strength to maintain dynamic seated position
- UE & shoulder girdle strength & AROM
- Sensation, coordination, and proprioception of limbs
- Disassociation of head/neck/trunk movements
- Driver skills assessment of motor abilities
 - Screens basic physical functions
 - <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/811113.pdf>

Cognitive Considerations

- Divided Attention
- Selective Attention
- Orientation
- Way-finding
- Problem Solving
- Timely decision making
- Visual Closure
- Short Term Memory
- Mental Flexibility
- General Executive Function



Visual Considerations



- Visual Acuity
- Peripheral Vision
- Depth Perception
- Visual Contrast Sensitivity
- Glare Recovery
- Color Perception
- Visual Scanning
- Visual Tracking
- Visual Scanning
- Saccades
- Visual Fixation
- Visual Fusion
- Prism Lenses vs. Contacts

Mobility Device Management

- Manual Wheelchair
- Electric Wheelchair
- Scooter
- Cane
- Walker (Rollator vs. Wheeled)
- Crutches
- Knee Scooter



Wheelchairs and Driving

- Mobility device must be properly secured or stowed
 - Unoccupied wheelchair restraints
- Ability to manage device independently
 - Transfer into swivel seat vs. OEM
- If intending to drive from a wheelchair, further adaptive equipment and lock-downs are required including a seatbelt (4-point securement) and head rests.
 - This would typically require work with a certified driver rehab specialist to make appropriate recommendations



Physical Therapy Approach

- General functional mobility, balance, ability to load and unload mobility device independently.
 - Adaptive equipment exists, but often the price is off-putting for patients/families



Occupational Therapy Approach

- Vision
 - Cognition
 - Decision Making
 - Mental Flexibility
 - Attention
 - Problem anticipation vs. identification
 - Emotional regulation vs. behavioral stability
 - Physical Performance
- Self-Assessment for patients:
- <http://www.um-saferdriving.org/firstPage.php>
- AOTA resources: <https://www.aota.org/Practice/Productive-Aging/Driving.aspx>

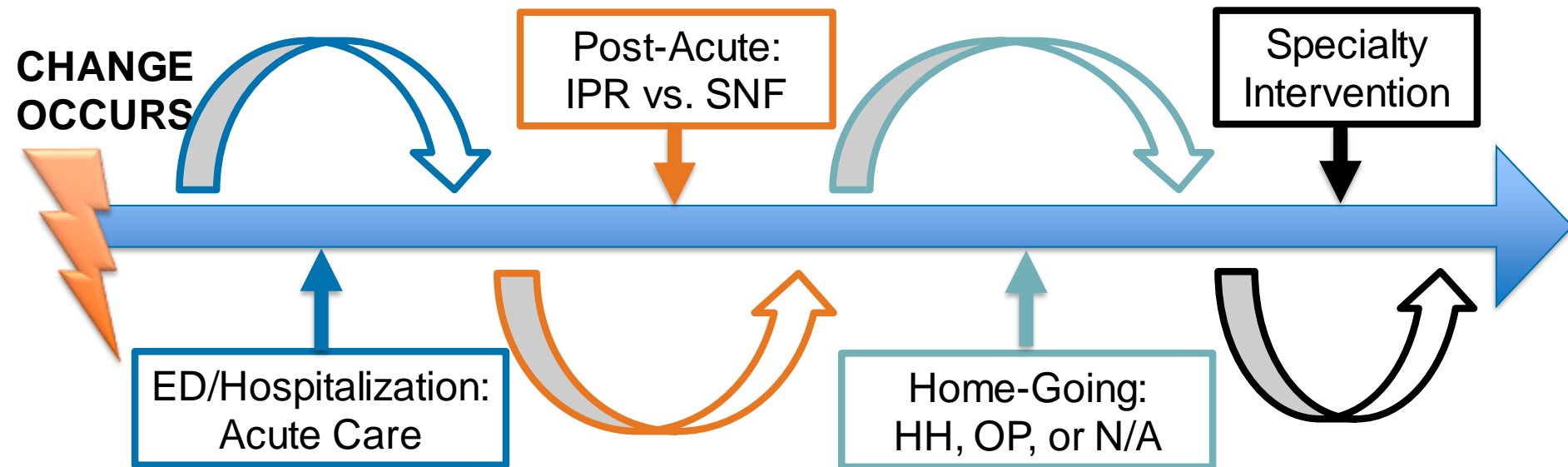


Speech Therapy Approach

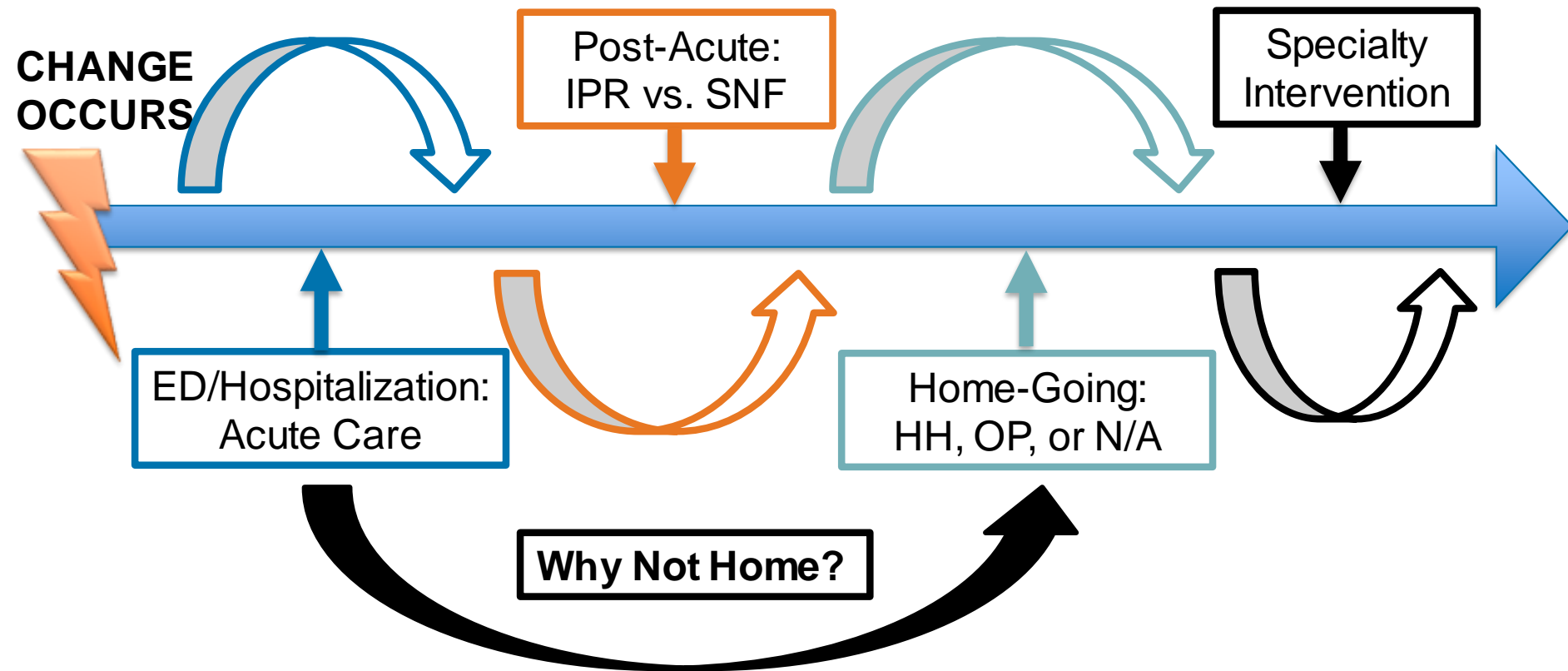
- Apraxia vs. Aphasia
 - In the state of Ohio the person must be able to read road signs in the English language. Difficulty passing vision screen at BMV
- Cognitive Impairment & Memory
- Communication with Assistive Technology
 - In the event the patient must interact with law enforcement or others
- Attention and concentration
- Dual tasking and problem solving



Continuum of Rehab: Acute Impact Approach

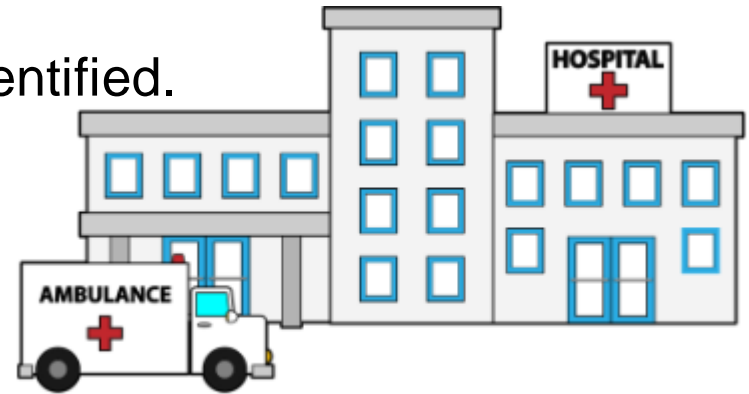


Continuum of Rehab: Acute Impact Approach



Discussing Driving: Hospital / Acute Care

- Home-going yes:
 - Address driving if ANY concern is identified.
 - Post-surgical restrictions
 - Head-related injury
 - General debility
 - If restriction evident:
 - Hold discussion with patient/family and set realistic recovery and timeline
- Home-going no:
 - May still hold discussion
 - May defer to another area of continuum



Discussing Driving: Post-Acute Care

- Independent at discharge:
 - No concerns to return to driving upon return home, defer to medical physician.
 - IF ANY concern- hold discussion:
 - Any residual cognitive or behavioral concerns?
 - Will require physical modification to vehicle?
 - Impaired “normal” function?
- NOT Independent at discharge:
 - May still hold discussion
 - May defer to another area of continuum



Discussing Driving: Home Health

- Considered Homebound?
- Are they independent to effectively leave home and manage all components?
- Any potential barriers with community re-entry without assistance or companion?
- May require collaboration with MD/Specialist

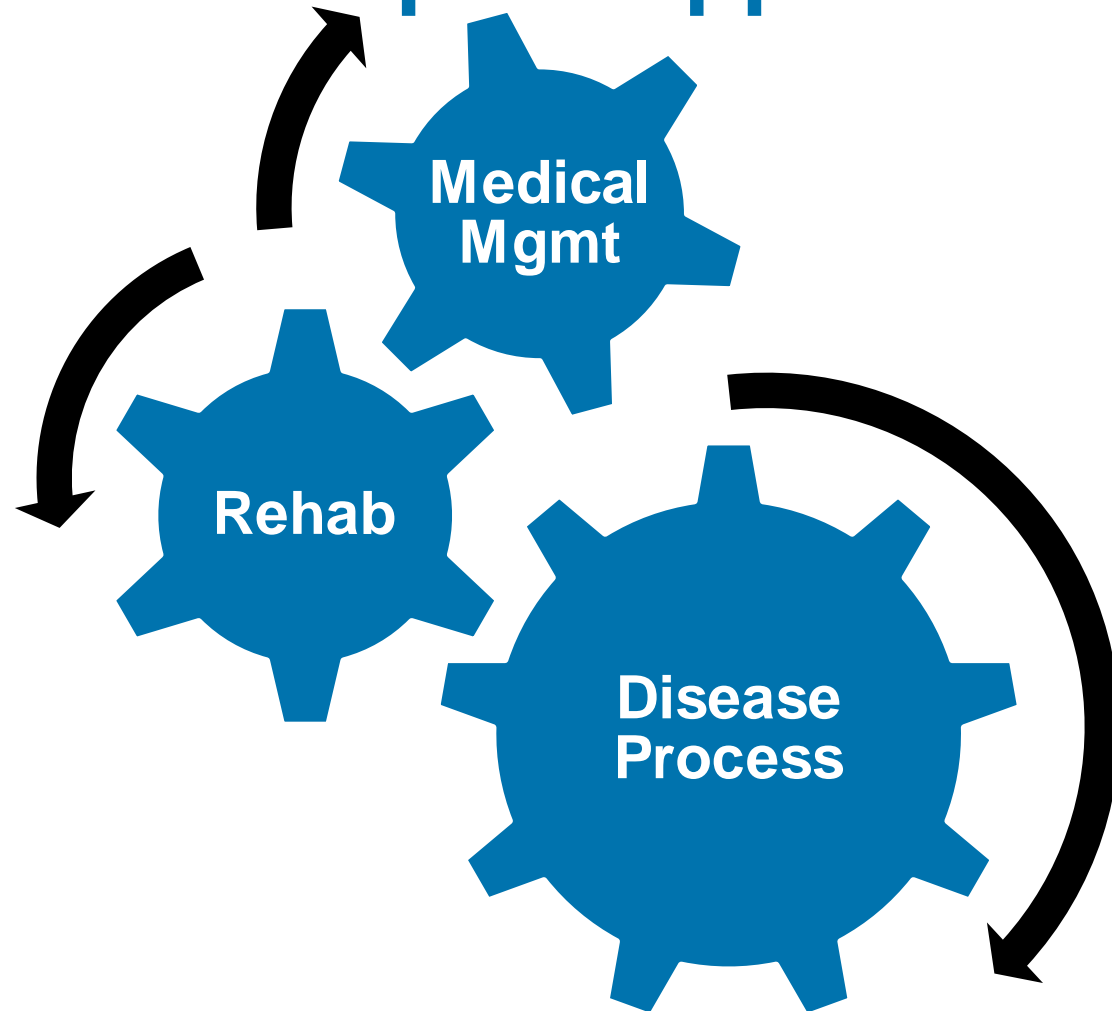


Discussing Driving: Outpatient

- Cognitive or physical fatigue evident following session(s)?
- Variable condition?
- Getting lost frequently within rehab facility following a few visits?
- May require collaboration with MD/specialist.



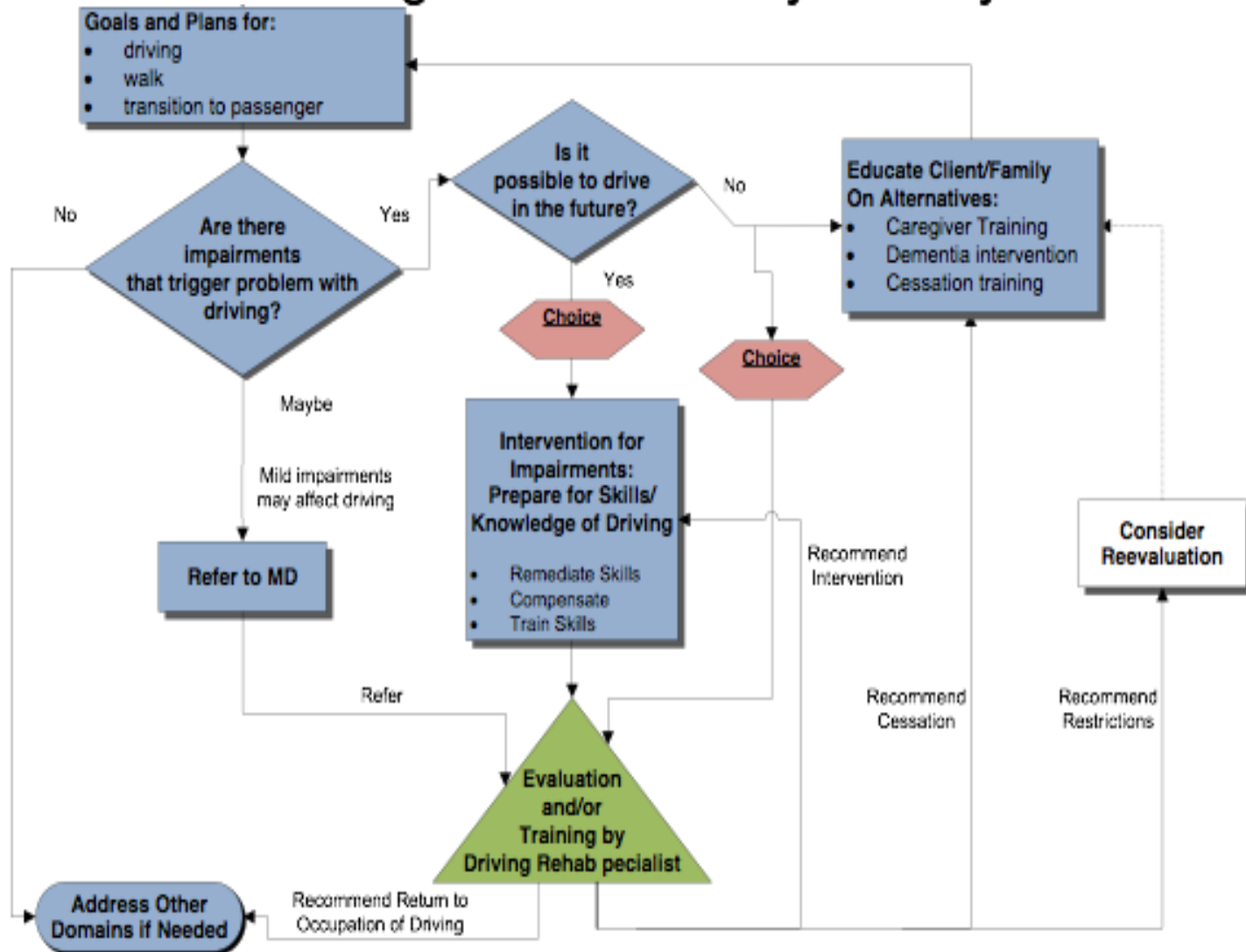
Continuum of Rehab: Chronic Impact Approach





Anne Dickerson's Decision Tree

Occupational Therapy Process for Driving and Community Mobility



Driving Inclusion vs. Exclusion

Inclusion Criteria:

- Medically stable
- Seizure free for pre-determined period of time
- If a suspected visual change – refer for a visual field test PRIOR to driving evaluation
- Hold a valid drivers license or temp. permit
 - Or eligible to obtain

Exclusion Criteria:

- Left Homonymous Hemianopsia
- Expired License or Permit without eligibility to renew
- Medically restricted license or permit
- Medical or physical instability

Medical Influence

- Diabetes
 - Vascular disease: Vision, physical function, sensation, cognition
- Parkinsonism
 - Physical ability and cognitive ability
- Cardiovascular Disorders
 - Physical endurance and other manifestations of deficits
- Polypharmacy or Medication Mismanagement
 - Including side effects
 - “Pseudodementia”
- Memory Decline and Dementing Disorders

Comprehensive Driving Evaluations

- Clinical
- In-vehicle Evaluation
- Adaptive Equipment Training
 - Includes coordinating patient's vehicle modifications
 - Includes re-test with BMV



OhioHealth Driver Rehabilitation Evaluation Program Locations

- Grady Memorial Hospital (Delaware, OH)
- Mansfield Hospital (Mansfield, OH)
- Upper Arlington Neurological Rehabilitation (Upper Arlington, OH)

Please contact me with questions:

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References

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