DESIGNING ACTIVITY AND WELLNESS PROGRAMS FOR INDIVIDUALS WITH COGNITIVE DEFICITS

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LEARNING OBJECTIVES:

PARTICIPANTS WILL BE ABLE TO…

- Articulate how team members can work together to develop wellness programs for individuals with cognitive impairment
- Identify various tools that can help develop optimal wellness programs for patients with cognitive impairment based on the patient's cognitive level

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AGENDA

1. Legislative update
2. Prevalence of cognitive disorders
3. Cognitive testing and Allen Cognitive Levels
4. Collaborative rehab follow-up protocol
5. Failure-free programming
6. Case studies

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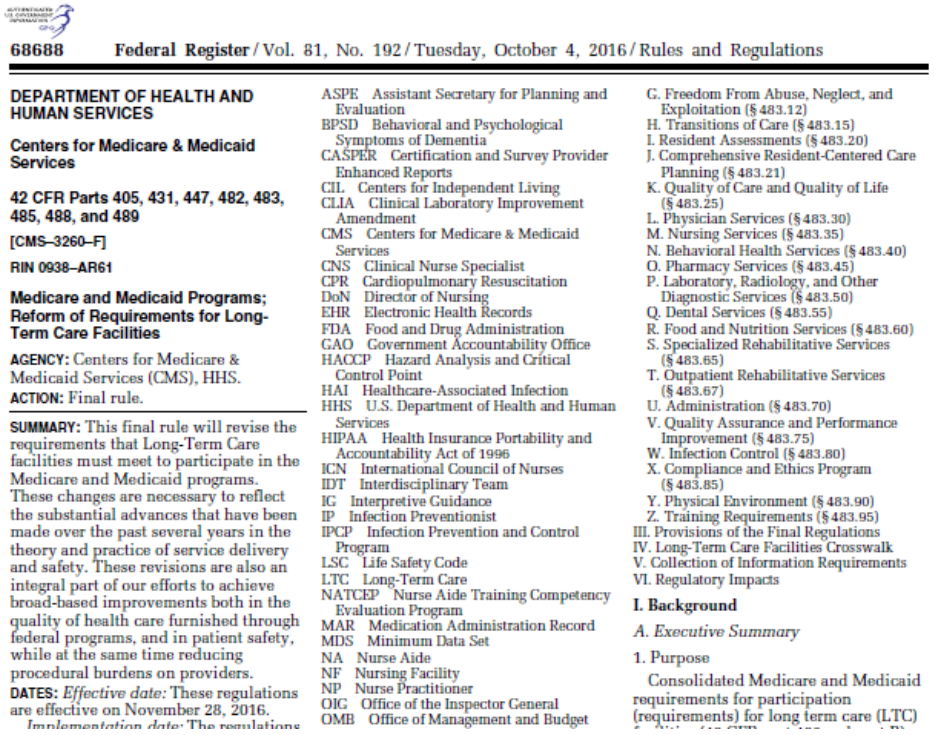
REFORM OF REQUIREMENTS FOR LONG-TERM CARE FACILITIES' PARTICIPATION IN MEDICARE AND MEDICAID

- **Final Rule of Participation for SNFs[1]**
- Published in the Federal Register on October 4, 2016
- Includes much related to cognition, behavioral issues and person-centered care



68688 **Federal Register** / Vol. 81, No. 192 / Tuesday, October 4, 2016 / Rules and Regulations

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 405, 431, 447, 482, 483, 485, 488, and 489

[CMS–3260–F]

RIN 0938–AR61

Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule will revise the requirements that Long-Term Care facilities must meet to participate in the Medicare and Medicaid programs. These changes are necessary to reflect the substantial advances that have been made over the past several years in the theory and practice of service delivery and safety. These revisions are also an integral part of our efforts to achieve broad-based improvements both in the quality of health care furnished through federal programs, and in patient safety, while at the same time reducing procedural burdens on providers.

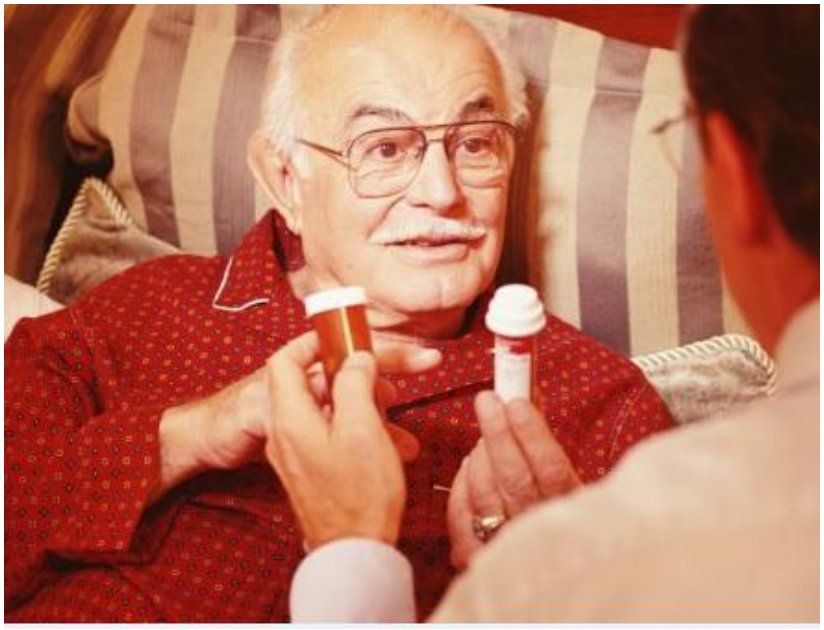
DATES: *Effective date:* These regulations are effective on November 28, 2016.

Implementation date: The regulations

ASPE Assistant Secretary for Planning and Evaluation
BPSD Behavioral and Psychological Symptoms of Dementia
CASPER Certification and Survey Provider Enhanced Reports
CIL Centers for Independent Living
CLIA Clinical Laboratory Improvement Amendment
CMS Centers for Medicare & Medicaid Services
CNS Clinical Nurse Specialist
CPR Cardiopulmonary Resuscitation
DoN Director of Nursing
EHR Electronic Health Records
FDA Food and Drug Administration
GAO Government Accountability Office
HACCP Hazard Analysis and Critical Control Point
HAI Healthcare-Associated Infection
HHS U.S. Department of Health and Human Services
HIPAA Health Insurance Portability and Accountability Act of 1996
ICN International Council of Nurses
IDT Interdisciplinary Team
IG Interpretive Guidance
IP Infection Preventionist
IPCP Infection Prevention and Control Program
LSC Life Safety Code
LTC Long-Term Care
NATCEP Nurse Aide Training Competency Evaluation Program
MAR Medication Administration Record
MDS Minimum Data Set
NA Nurse Aide
NF Nursing Facility
NP Nurse Practitioner
OIG Office of the Inspector General
OMB Office of Management and Budget

Older Adults: Psychotropics and Non-pharmacological Approaches

- A psychotropic drug is any drug that affects brain activities associated with mental processes and behavior. These drugs include anti-psychotics, anti-depressants, anti-anxiety, medications and hypnotics.
- Each resident's drug regimen must be free of unnecessary drugs.



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NON-PHARMACOLOGICAL APPROACHES TO ANTIPSYCHOTIC MEDICATION REDUCTION

Some CMS examples[2] of non-pharmacological approaches:

- Enhancing the taste and presentation of food, assisting the resident to eat, addressing food preferences, and increasing finger foods and snacks for an individual with dementia to avoid unnecessary use of appetite stimulating medications
- Individualizing toileting schedules to prevent incontinence and to avoid the use of incontinence medications that may have significant adverse consequences (e.g., anticholinergic effects)
- Increasing the amount of exercise, intake of liquids and dietary fiber, and an individualized bowel regimen to prevent or reduce constipation and the use of medications (e.g., laxatives and stool softeners) Addressing underlying causes of distressed behavior such as boredom and pain
- Using sleep hygiene techniques and individualized sleep routines
- Accommodating behavior and needs through activities reminiscent of lifelong work or activity patterns (such as providing early morning activity for a farmer who is used to waking up early)

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Non-Pharmacological Approaches to Antipsychotic Medication Reduction (continued)

More CMS examples[2] of non-pharmacological approaches:

- Developing interventions specific to interests, abilities, strengths, and needs, such as simplifying or segmenting tasks for a resident who has trouble following complex directions
- Using massage and hot/warm or cold compresses to address pain or discomfort
- Arranging staffing to optimize familiarity and consistency for a resident with symptoms of dementia

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PREVALENCE OF ALZHEIMER'S DISEASE

- 5.8 million Americans have Alzheimer's Disease
- 1 in 10 people over 65 have Alzheimer's or a related type of dementia
- About 2/3 of Americans with Alzheimer are women
- Older African Americans and Hispanics are more likely than older white people to have Alzheimer's Disease and other types of dementia
- **6TH LEADING** CAUSE OF DEATH IN THE UNITED STATES
- Future estimates of Americans age 65 and older:
  - 2050: 14 million
- Every 65 seconds someone in the U.S. develops this disease
  - (Alzheimer's Association, 2019) [3]

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PROGRESSION OF ALZHEIMER'S AND RELATED DEMENTIAS

Type of Dementia	Progression
Alzheimer's disease	Gradual onset and progression; memory loss occurs before communication and personality changes
Vascular dementia (such as multi-infarct dementia)	More abrupt onset with stepwise progression
Dementia with Lewy bodies	Fluctuating course
Frontotemporal dementia (including Pick's disease and primary progressive aphasia)	Communication and personality changes occur before motor and memory loss

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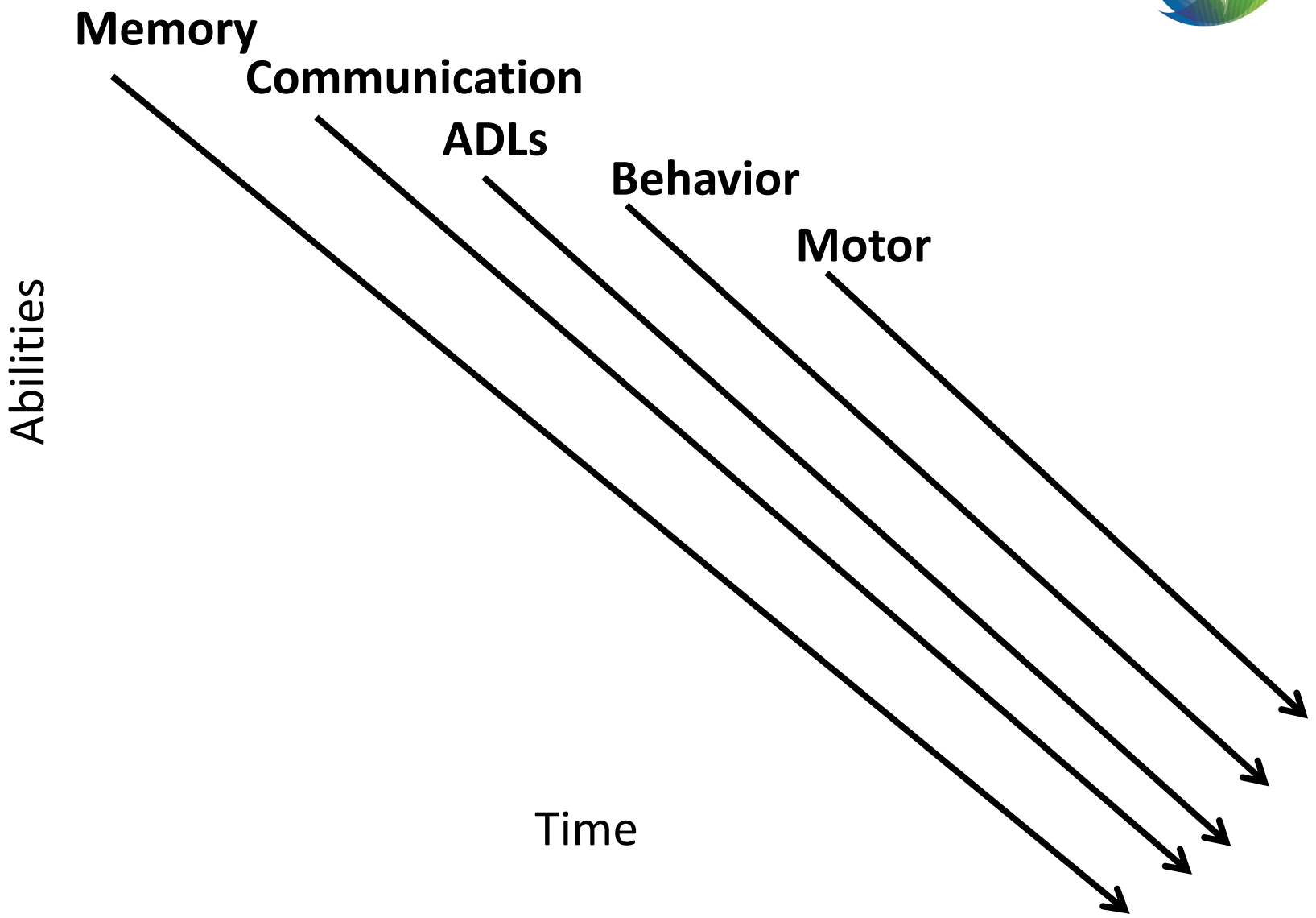
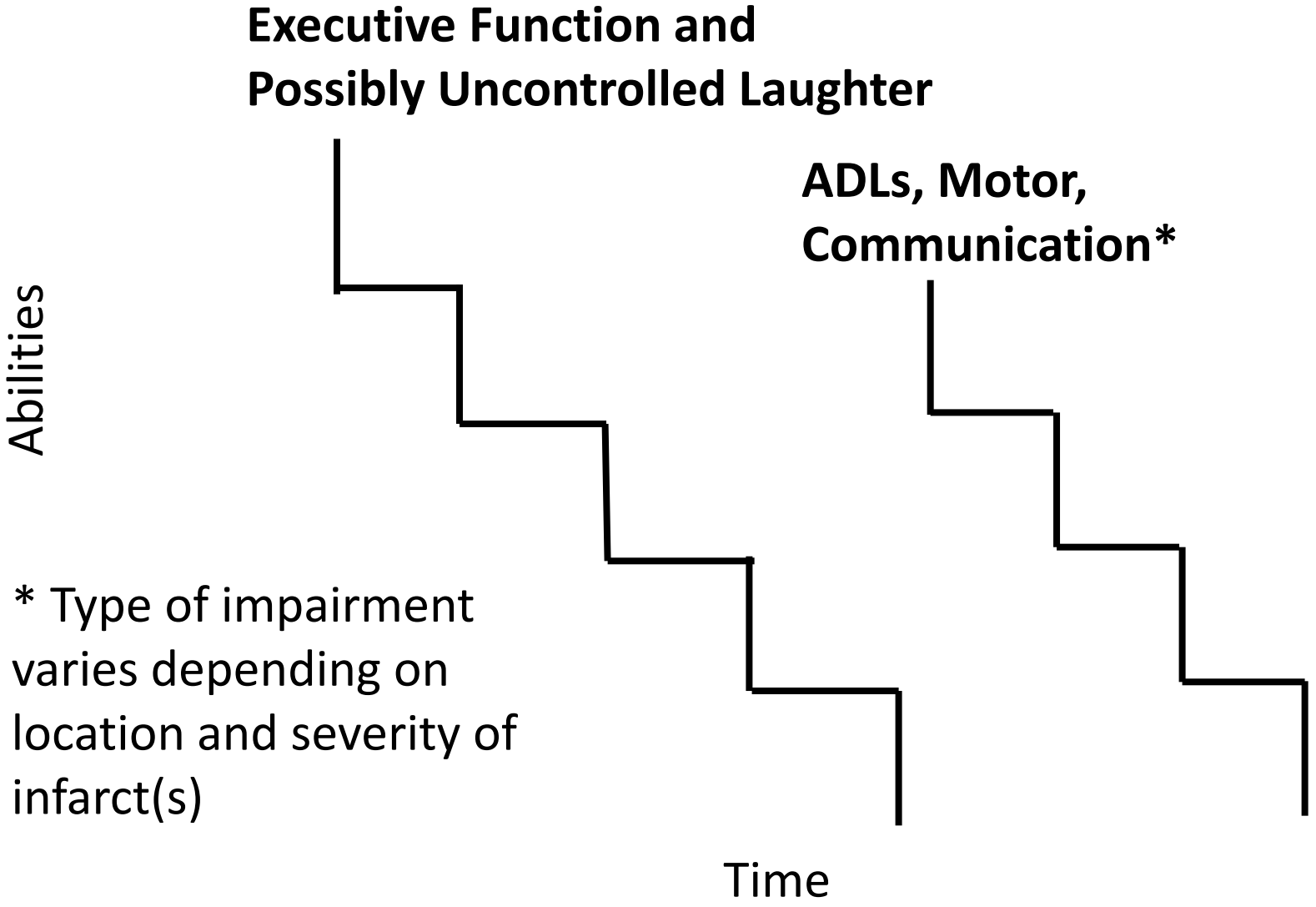
ALZHEIMER'S DISEASE PROGRESSION

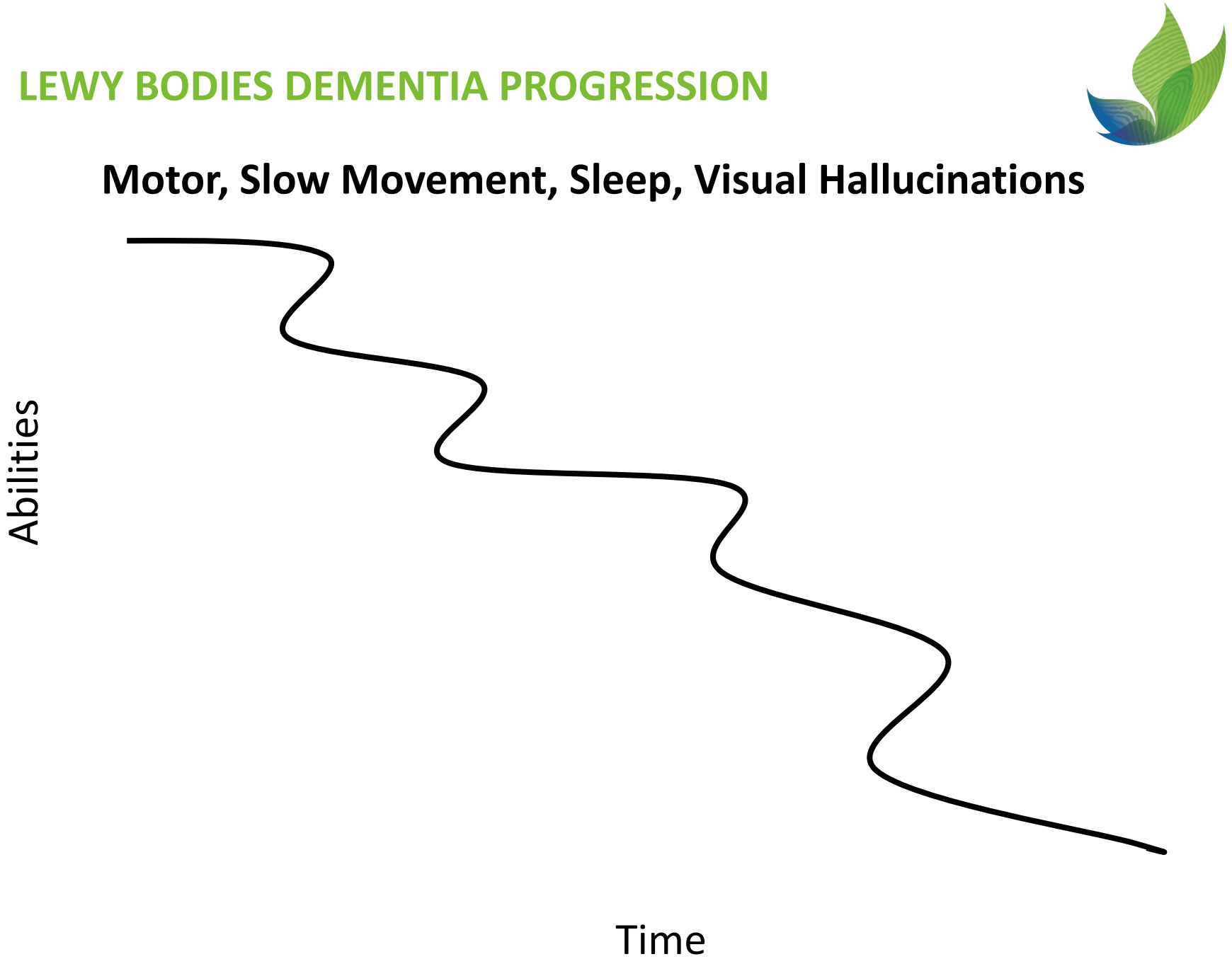


VASCULAR DEMENTIA PROGRESSION*



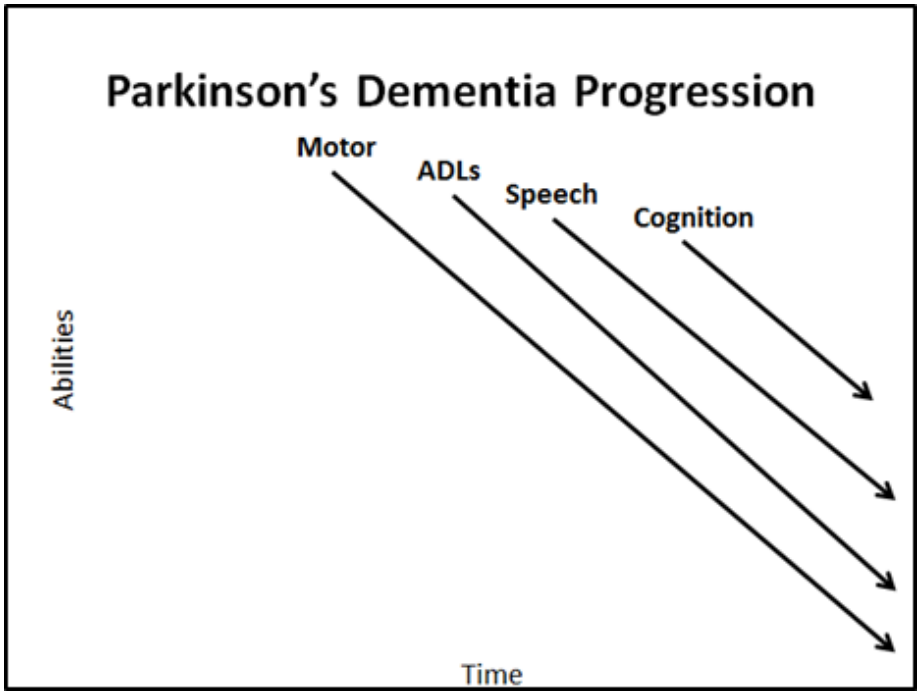
* Type of impairment varies depending on location and severity of infarct(s)

LEWY BODIES DEMENTIA PROGRESSION



PARKINSON'S DEMENTIA

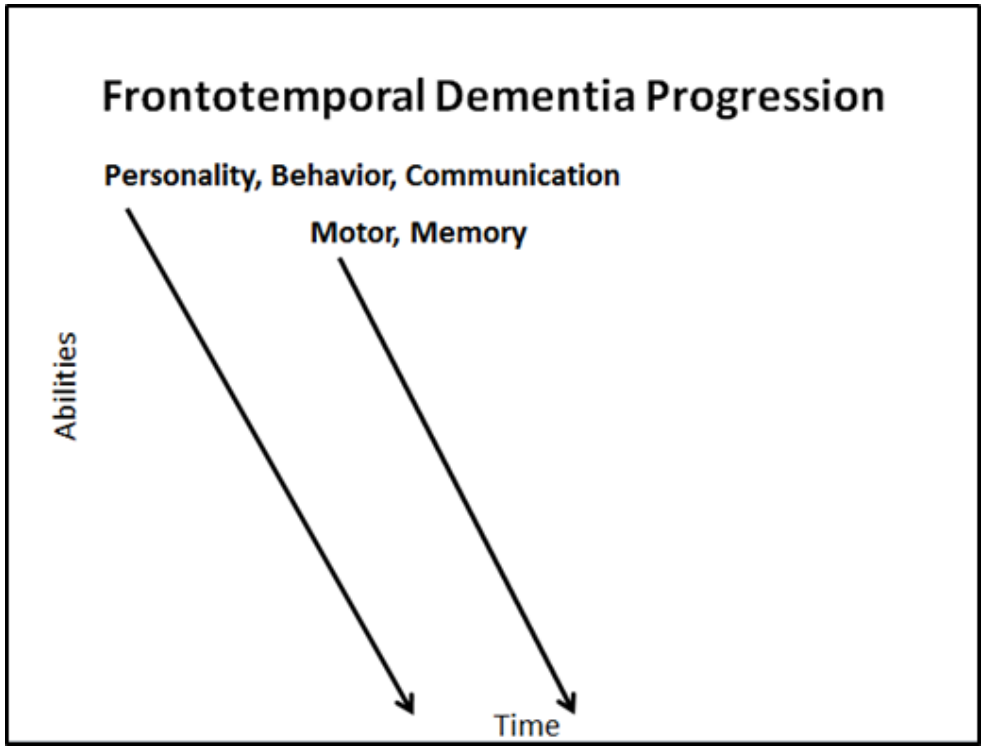
- ADLs and speech production are more impacted during middle stages.
- Dementia may occur in later stages of Parkinson's disease.
- Similar to Alzheimer's disease and Lewy body dementia.



FRONTOTEMPORAL DEMENTIA

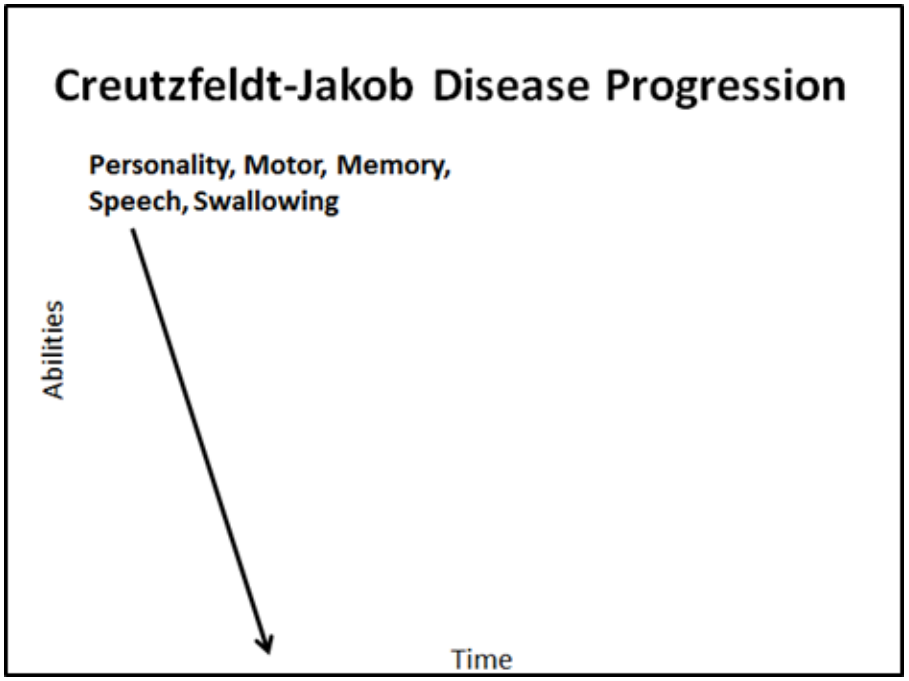
Usually presents earlier with faster progression.
Includes:

- Pick's disease,
- Primary progressive aphasia,
- Progressive supranuclear palsy
- Cortico-basal degeneration



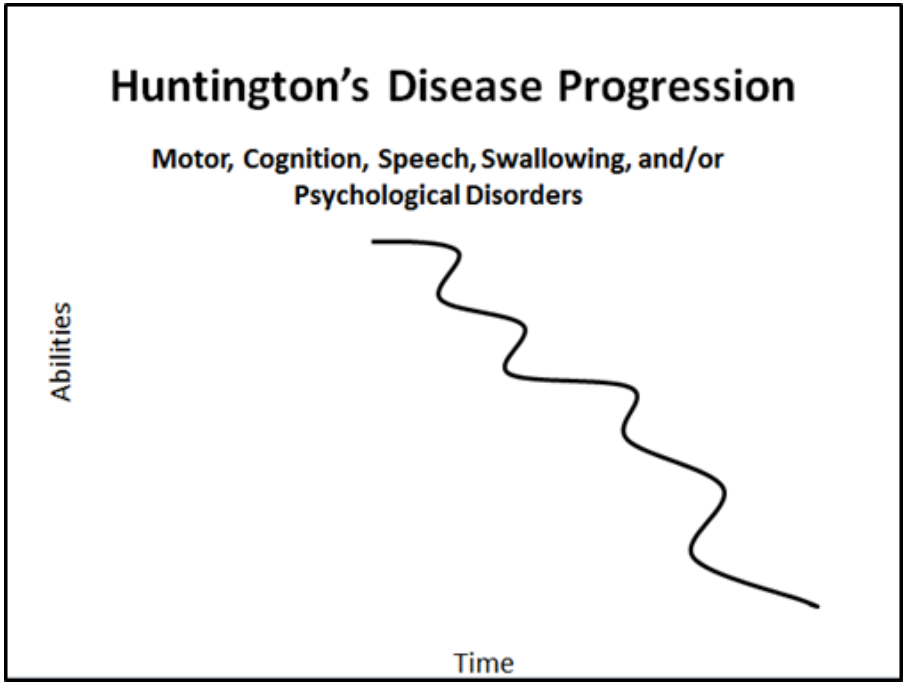
CREUTZFELDT-JAKOB DISEASE

- Very rare and rapidly fatal (within a year)
- Personality issues:
  - anxiety, depression, incoordination, memory loss, blurred vision/blindness, insomnia, speech difficulty, dysphagia, and jerky movements
- Usually lapse into a coma
- When due to consumption of affected beef, psychiatric issues may occur before dementia



HUNTINGTON'S DISEASE

- A hereditary genetic disorder
- Onset and symptoms vary; onset at an early age (20-49
- Motor symptoms:
  - involuntary jerky movements
  - rigidity,
  - muscle contractures
- Cognitive symptoms:
  - Memory
  - Concentration,
  - Decision making,
- May be sexually promiscuous



COGNITIVE DEFICITS

Other conditions and disease processes can contribute to the development of cognitive deficits, such as:

- Mild cognitive impairment (MCI)
- Traumatic brain injury
- Cerebrovascular accident (CVA)/stroke
- Multiple infarct dementia
- Chronic obstructive pulmonary disease (COPD)
- Schizophrenia and other mental health disorders

- Physicians may be unaware of cognitive impairment in more than 40% of their cognitively impaired patients. [4] Therefore, the cognitive impairment may not be diagnosed!

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MILD COGNITIVE IMPAIRMENT (MCI)

- Alzheimer's Association: A slight but noticeable and measurable decline in cognitive abilities, including memory and thinking skills. A person with MCI is at an increased risk of developing Alzheimer's or another dementia. [5]
- It is important to include appropriate cognitive programming for patients with MCI in an effort to retain function as long as possible.

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MCI RISK FACTORS

From the Mayo Clinic[6]:

- Age
- Specific gene (APOE-e4), which is also linked to Alzheimer's disease
- Diabetes
- Smoking
- Depression
- High blood pressure
- Elevated cholesterol
- Lack of physical exercise
- Infrequent participation in mentally or socially stimulating activities

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BRAIN HEALTH

- Promoting brain health through proper nutrition, adequate sleep, stress reduction, medication management, and exercise is important for adults.

- **Exercise is important for brain health:**
- Physical exercise
- Cognitive exercise

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SUPPORT AND COLLABORATION

- Dementia Action Allience[8]:
- Dementia Mentors[9]
- Resouses
- Equipment

COLLABORATIVE PARTNERSHIP WITH THE REHAB TEAM

The rehab team obviously plays an important role in developing optimal programming for patients with cognitive dysfunction that is:

- Patient-specific
- Patient-centered

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THE SEVEN DIMENSIONS OF WELLNESS

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VALUE OF COGNITIVE TESTING

- The choice of cognitive test is important in providing a comprehensive understanding of the cognitive deficit and also pointing to beneficial activities and approaches.

- **Some screens can be performed by many team members, such as:**
  - Mini-Mental Status Exam (MMSE)
  - Clock Draw Test
  - Brief Interview of Mental Status (BIMS)
  - Cognitive Performance Score
  - Global Deterioration Scale (GDS)
  - Montreal Cognitive Assessment (MoCA)

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VALUE OF COGNITIVE TESTING (CONTINUED)[9]

- **Some tests can be performed by therapists with specific training, such as:**
  - Allen Cognitive Levels
    - Allen Cognitive Level Screen (ACLS) 5 or 6
    - Allen Diagnostic Module (ADM)
    - Routine Task Inventory (RTI)
    - Sensory Motor Assessment (SMA) — in development
  - Cognitive Performance Test (CPT)
  - Functional Linguistic Cognitive Inventory (FLCI)
  - Arizona Battery of Communication Disorders of Dementia (ABCD)

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VALUE OF ALLEN COGNITIVE TESTING [10, 11, 12]

- A model for evaluation and intervention
- Hierarchy of cognitive processing skills
- Measures the severity of the cognitive disability
- Shows what the patient can do
- Points to potential function associated with the cognitive level and appropriate setting (predictive)
- Indicates treatment activities and approaches beneficial at the cognitive level
- Provides valuable information for many disciplines, professionals, and family members

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POP QUIZ

Name two cognitive tests or screens

POP QUIZ

Name two cognitive tests or screens.

Some are:

- ✓ Mini-Mental Status Exam (MMSE)
- ✓ Clock Draw Test
- ✓ Brief Interview of Mental Status (BIMS)
- ✓ Allen Cognitive Level Screen (ACLS)
- ✓ Allen Diagnostic Module (ADM)
- ✓ Routine Task Inventory (RTI)
- ✓ Sensory Motor Assessment (SMA)
- ✓ Cognitive Performance Test (CPT)
- ✓ Functional Linguistic Communication Inventory (FLCI)
- ✓ Arizona Battery of Communication Disorders of Dementia (ABCD)
- ✓ Montreal Cognitive Assessment (MoCA)

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ALLEN COGNITIVE LEVELS

There are **six levels** and there are modes within each level:

- Level 1: Automatic Actions
- Level 2: Postural Actions
- Level 3: Manual Actions
- Level 4: Goal-Directed Actions
- Level 5: Independent Learning
- Level 6: Planned Actions

- Descriptions of levels are currently being modified by Claudia Allen and will be available in the ACLS-6.

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ALLEN COGNITIVE LEVELS: DEVELOPMENTAL AGE COMPARISON

Level	Allen Title	Stage	Developmental Age Comparison
Level 1	Automatic Actions	Advanced	Infant to 11 Months
Level 2	Postural Actions	Late	12 to 18 Months
Level 3	Manual Actions	Middle	18 Months to 3 Years
Level 4	Goal-Directed Activity	Early	4 to 10½ Years
Level 5	Independent Learning	MCI	Teens to Early 20s
Level 6	Planned Actions	Normal	25 Years +

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ACL MODES

Therapists use modes within Allen levels to further delineate cognitive ability.
For example:

- **<u>Level 1 Automatic Actions</u>**
- 1.0 Withdraws from stimuli
- 1.2 Responds to stimuli
- 1.4 Locates stimuli
- 1.6 Moves in bed
- 1.8 Raises body parts

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CAN DO, WILL DO, MAY DO

Can Do

- Realistic abilities
- Based on cognitive level, motor skills, physical capacity, sensory skills

Will Do

- Psychologically relevant to that person
- Influenced by culture, values, history, and interests

May Do

- Potential abilities influenced by the environment and support structure
- Influenced by legal factors, educational level, and employment history
- Ideal considerations for a treatment program

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ACTIVITY ADAPTATION TO FACILITATE BEST ABILITIES

- **Identify activities of interests**
- **Adapt activities based on cognitive level, motor skills, sensory stills**
- **Considerations for adaptations include:**
  - New learning abilities
  - Attention span
  - Ability to scan environment
  - Awareness of purpose/goal
  - Quality of work
  - Problem solving
  - Social/psychosocial

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ACTIVITY ADAPTATION TO FACILITATE BEST ABILITIES (CONTINUED)

Considerations (continued)

- Environmental
- Activity engagement and ability to attend or initiate
- Ability to select an activity
- Ability to follow directions
- Response time

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
New Learning Ability	May learn with repetition over a period of time if activity is highly valued, simple, concrete, valued, or 2-3 steps	Questionable with new activity; should be presented each time and broken down into one step	Unable to learn new activity	N/A; may be unable to physically engage in the activity
Attention Span	Minimum of 20 minutes, requires one to two verbal and/or visual cues	5-20 minutes, intermittent verbal cues	Needs content cueing; may be unable to attend	Requires constant cueing
Environmental Scanning	Materials and supplies placed 24 inches in front	Materials and supplies placed 14 inches in front; will attend to leader 3 to 6 feet in front or beside	Materials and supplies placed 14 inches in front; position close to the group leader	Materials need to be directly in front; will require 1:1 with most activities

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Awareness of Purpose or Goal	Some awareness of object of game, goal, purpose, or object to be made; may benefit from sample	Unaware of object of game, goal, or purpose, but aware of actions to be performed as part of the activity.	No awareness of game, purpose, or goal; may respond to actions or stimulus with gross movements, change in posture, or minimal verbalizations	No awareness of purpose or goal; may demonstrate subtle response to stimuli

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Communication Abilities	Able to read out loud and to self but limited comprehension; can write; speaks in phrases; can share stories	Can read a few words without comprehension; may be able to write name; speaks in short phrases	Can speak a few words or short phrases; unable to read or write	May respond with facial expressions; nonverbal
Physical Attributes	Gross and fine motor movements are functional; may get lost and not recognize hazards	Gross movement OK; fine motor movements may be slow, but able to grasp	Gross movement of arms present but may need cues; fine motor skills limited to holding objects placed in hands	May demonstrate reflexive grasp when objects placed in hand; minimal arm, leg, and head movement

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Quality of Work	Cues to clean up and to point out minor errors	Frequent cueing for clean-up, which may lack thoroughness or quality	No awareness of quality	N/A
Problem Solving	Situations presented need to be familiar and concrete; need assistance for minor problems	Unable to solve most problems; will need help from others or caregiver	Unable; will need to be solved by others	N/A

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Kim Warchol

Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Sequencing	Assistance needed for new activity one step at a time; can sequence familiar tasks	Assistance for each step for most activities one step at a time	Total assistance to perform one-step actions	N/A; patient unable to perform activities with multiple steps
Social	Can take turns; able to participate in group/social activities; may be blunt or interrupt; may be territorial and attempt to protect perceived possessions	Can take turns with cues; may need cues or assistance to interact; may be able to engage in conversations with cues	Can interact with others with one-on-one cueing; can demonstrate some verbalization with cues; only minimal awareness of	May smile or grunt with stimulation

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Ability to Attend or Initiate an Activity or Engagement	Is aware activity is occurring; may express interest in attending; can use activity calendar with assistance; may need assistance to locate activity	Is not aware activity is occurring; may express limited interest to participate in valued activity	Will need others to select activities based upon past interests and abilities	Able to respond to sensory stimulation activities in group or one-on-one situation
Ability to Follow Directions	Able to follow simple verbal directions; can read but written directions can not be depended upon to convey information	Able to follow simple one-step verbal directions; may require a demonstration to perform the action	Can follow simple one-step directions with hand-over-hand assistance or demonstration; most will require one demonstration to perform an action	Severely impaired, but may make simple movement with simultaneous verbal and hands-on cueing

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Activity Analysis/Adaptation[13]

Component	Early	Middle	Late	Advanced
Response Time; Speed of Actions or Movements	Performs activities at a slower than normal rate; unable to respond to request to work faster or slower	Performs activities at a significantly slower rate; may need extra time to respond to a question or request; wait 15-20 seconds before repeating a question or request	Can perform simple action at a significantly slower than normal rate; will require extra time to respond to a simple question or request and will likely need hand-over-hand or visual cues to process the question or request	Subtle responses observed to stimulation; however, require at least 30 seconds to observe

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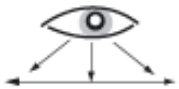
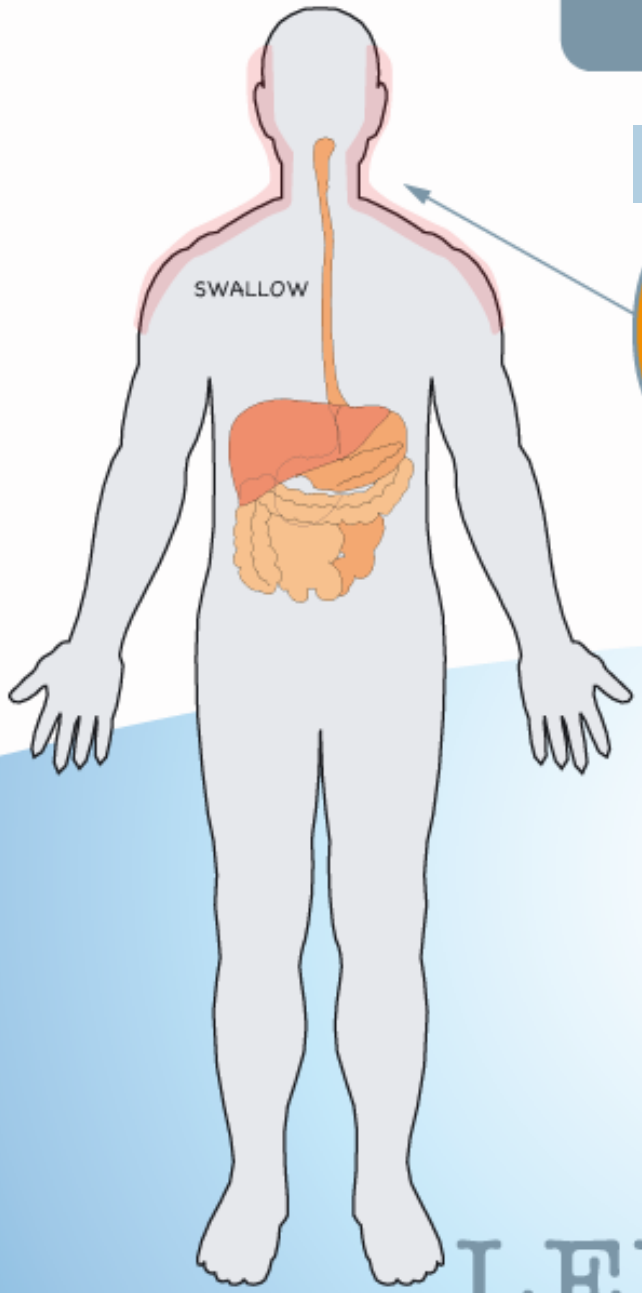
AUTOMATIC ACTION

Thinking About :

- Survival





Advanced Stage

Field Of Conscious Awareness:

Attention To 5 Senses:

- Smell
- Sound
- Taste
- Sight
- Touch

Associated Movements:

- Protective Reflexes
- Locating Strong Stimuli
- Sustenance

LEVEL ONE

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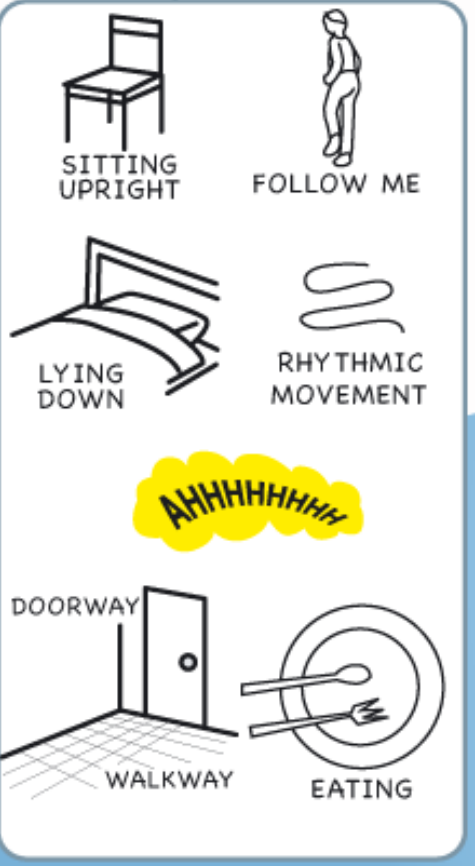
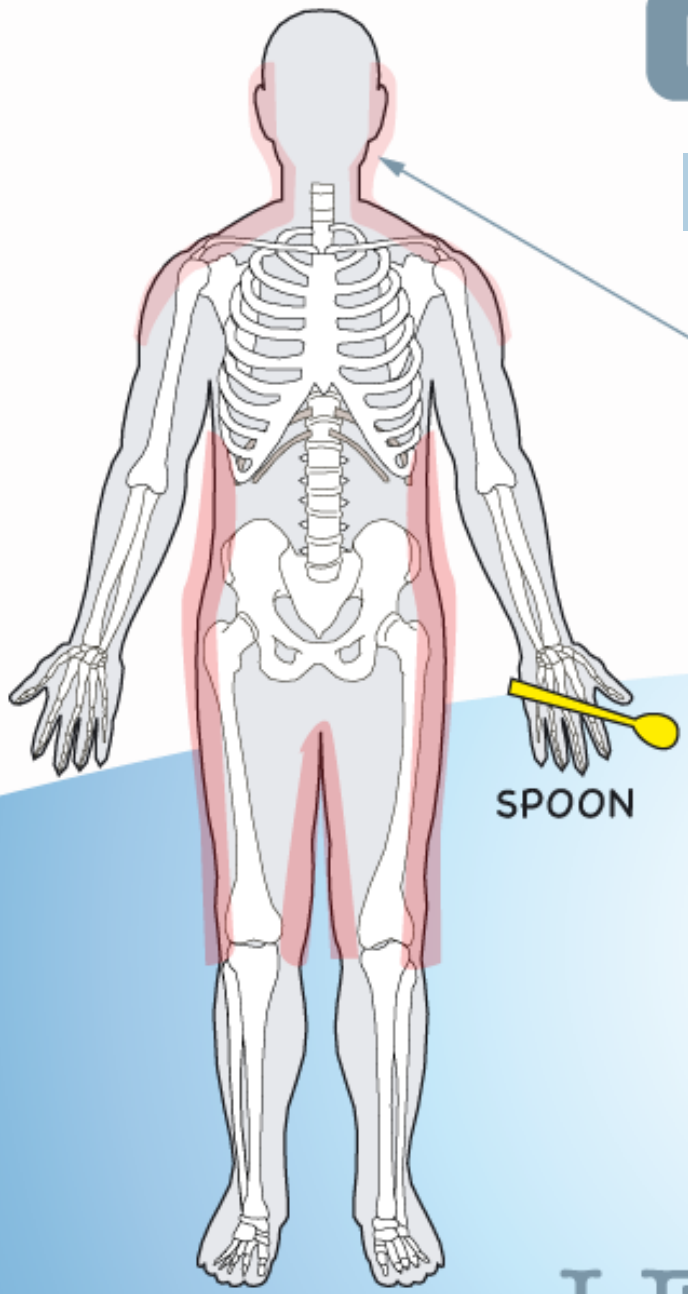
POSTURAL ACTIONS

Thinking About :

- Proprioceptive Cues
- Stability / Falls
- Safety / Comfort





Late Stage

Field Of Conscious Awareness:

Attention To :

- Trunk Balance
- Movements of Extremities
- Large External Objects
- Cues To Barriers

Associated Movements:

- Overcoming Effects of Gravity
- Sit, Stand, Walk, R.O.M. & Push
- Avoiding Barriers

LEVEL TWO

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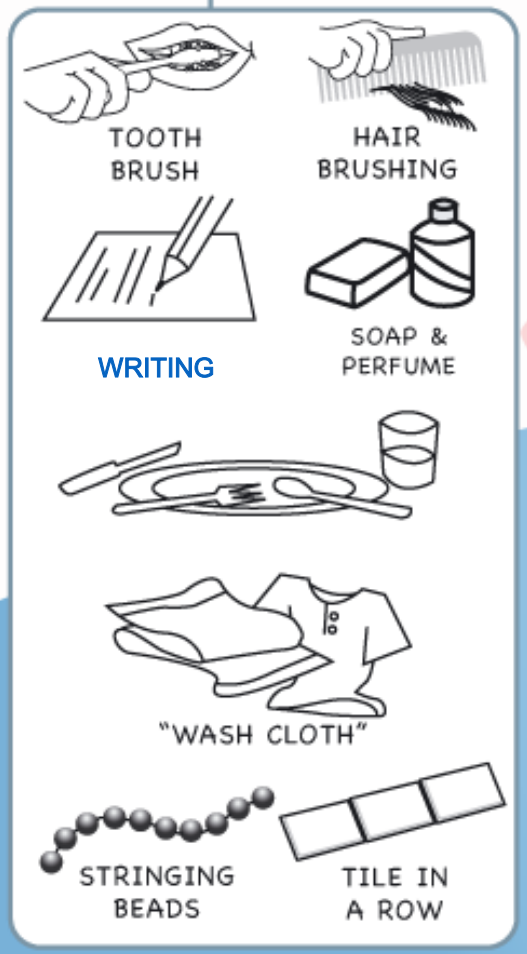
MANUAL ACTION

Middle Stage

Thinking About :

- Feeling
- Moving
- Identifying objects



Field of Conscious Awareness

Approximately 14 inches

(Tunnel Vision)

Attention To:

- **Gross Hand Coordination**
- Finger Opposition
- Perceptual Categories:
  -Size, Shape & Row
- Sustaining Action

Associated Movements:

- Handling Object
- Repetitive Action
- Following Cues

LEVEL THREE

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GOAL DIRECTED ACTIVITY

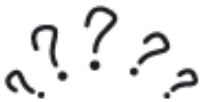
Thinking About :

- Is This RIGHT?
- This Is MINE / YOURS
- I've Done This Before
- "What's Next?"


SHAPE, SIZE & COLOR


HORIZONTAL VERTICAL AXES


RETRIEVAL OF OLD LEARNING

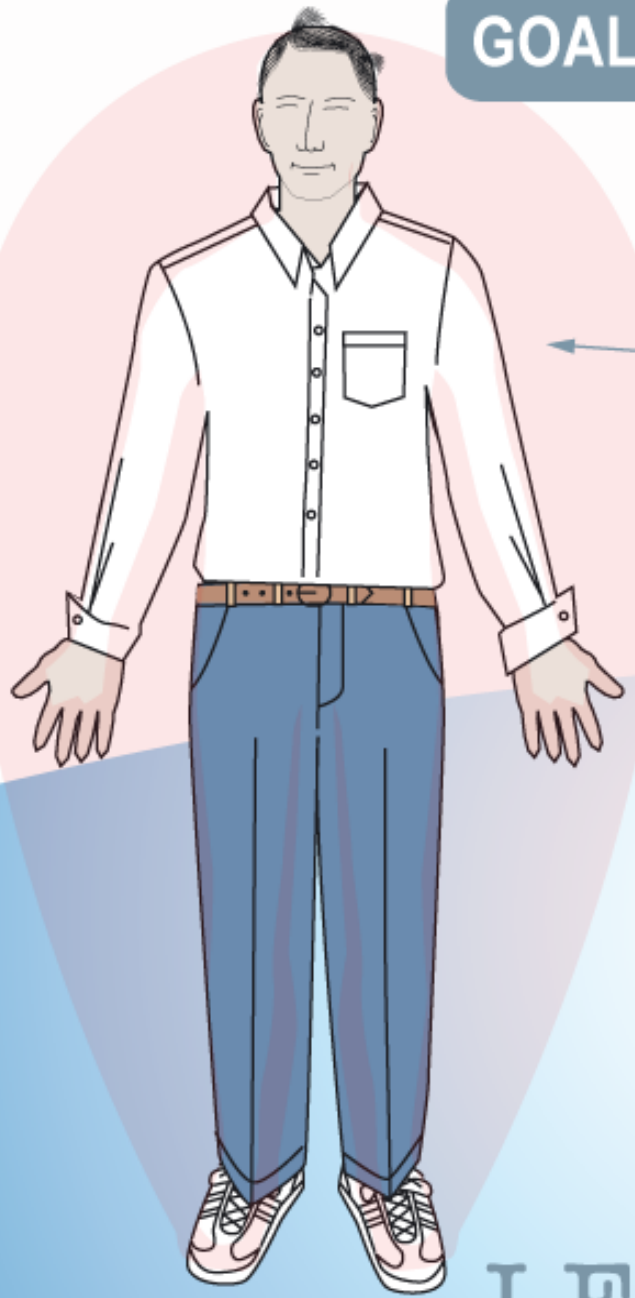

NEW PROBLEMS


Concrete Thinking

SIMPLE SEQUENCE


ROUTINE


STRUCTURE



Early Stage

3 to 4 Feet
Field of Conscious Awareness

Attention To:

- Figure Ground Perception
- Striking Visual Cues
- Old Effects Of Actions
- Errors & Samples
- Possessions

Associated Movements:

- Goes To Next Step
- Self-Care Alone
- Complies With Direction

LEVEL FOUR

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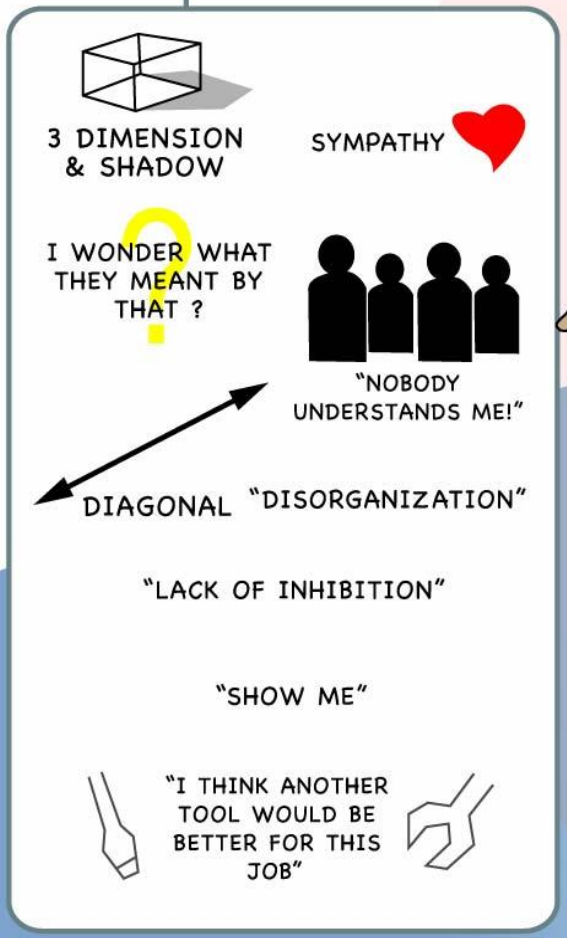
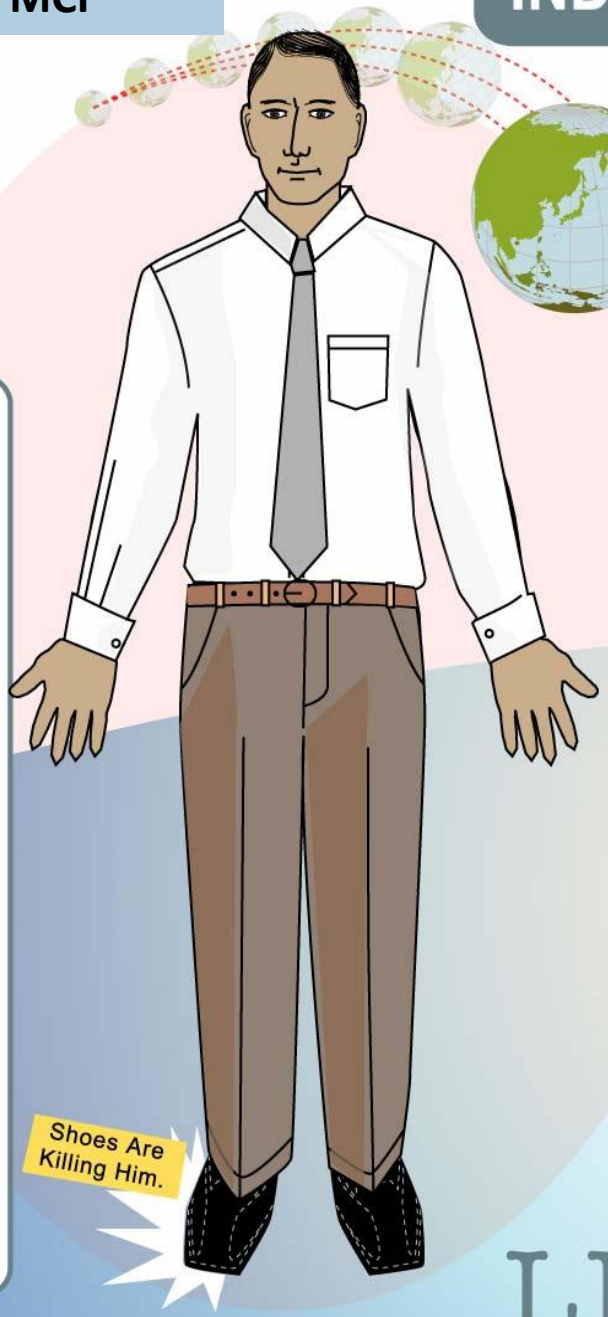
MCI

INDEPENDENT LEARNING

Thinking About :

- I Make This Easier, Faster & Better ?
- What's In It For Me?
- "US" Against "THEM"





The WORLD That Revolves Around Him or Her

Field of Conscious Awareness

Attention To:

- Discovery Of New Effects & Remember
- Surface Property & Textures
- Feelings Of Self & Personal Rights

Associated Movements:

- New Exploratory Actions
- Fine Motor Adjustments
- Talks & Works
- Impulsive

LEVEL FIVE

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Normal

Thinking About :

- What Would Happen If...?
- What Do you Think About This?
- What Are My Options?
- How Can I Help You?

"What would be the best approach?"

" COMFORTABLE SHOES TO WALK"

"How could this affect others?"

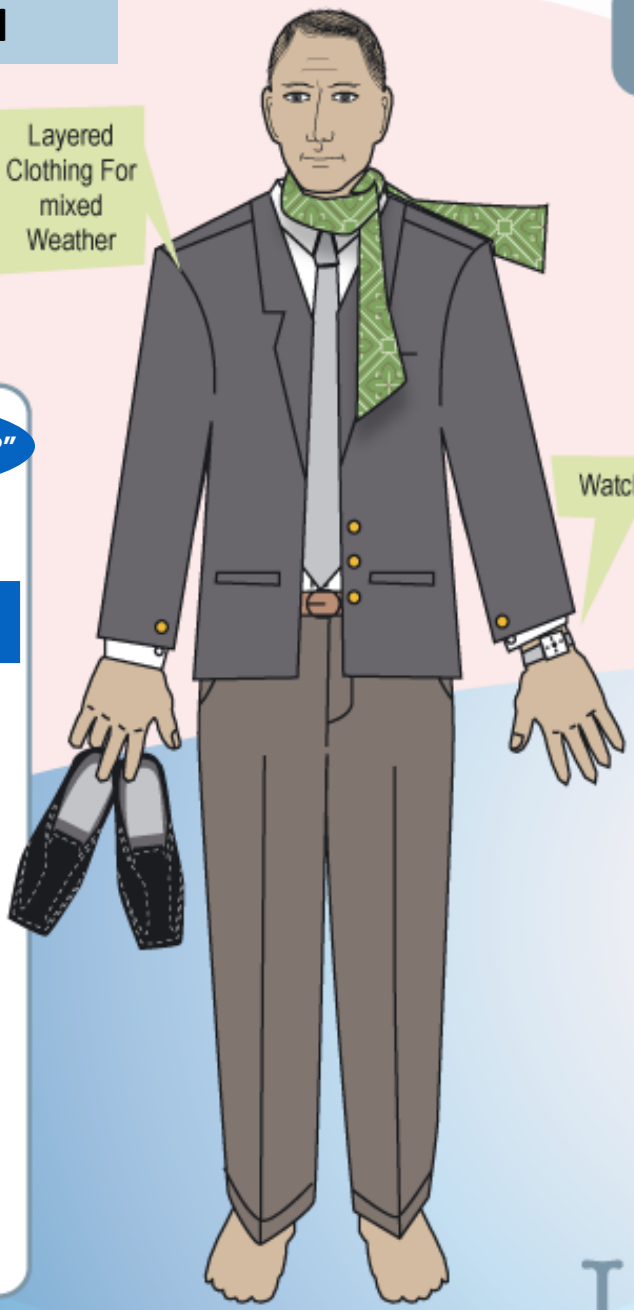
" THEY MAY BE HAVING A BAD DAY..."

"Need more information"

" HOW CAN WE WORK TOGETHER"

A OR B

" WHAT ARE MY OPTIONS"



PLANNED ACTIONS

Field of Conscious Awareness

Attention To:

- Symbolic / Abstract Cues: Time, Gravity & Evaporation.
- Hypothetical Risks as Anticipated Hazards
- Social Expectations & Personal Obligations
- Greater Good

Associated Movements:

- Stopping To Think
- Seeking More Information
- Checking Clock / Schedule
- Considering Needs of Others
- Organizing Priority

LEVEL SIX

Concept used with permission from Tina Blue

POP QUIZ

Based on what you know so far…

1. How many Allen levels are there?
2. At what Allen level would you move objects for the patient to visually track them?
3. At what Allen level do patients like to fiddle with their hands?
4. At what Allen level do patients usually live in the community but lack inhibition?

POP QUIZ

Based on what you know so far…

1. How many Allen levels are there? 6 levels
2. At what Allen level would you move objects for the patient to visually track them? ACL 1
3. At what Allen level do patients like to fiddle with their hands? ACL 3
4. At what Allen level do patients usually live in the community but lack inhibition? ACL 5

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LIFE HISTORY

Find out specific detailed information about the patient and his/her history, such as:

- Family
- Home and neighborhood
- Occupation, habits, and leisure
- Likes, dislikes, and daily routine

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ADVANCED DEMENTIA

- Even persons who have severe cognitive deficits still have some remaining abilities. It is important to identify those strengths and understand the person's history in order to provide programming to maintain those skills.

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SENSORY MOTOR ASSESSMENT

- Aegis Therapies developed the Sensory Motor Assessment (SMA) as an update to previously available Allen materials
- The goal was to develop a standardized cognitive assessment tool for low level patients using the Allen Cognitive Disability Model

SENSORY MOTOR ASSESSMENT: A LOOK INSIDE

Level 1	ACLS-6 Title: **Sensory Experiences** ACLS-5 Title: **Automatic Actions**	ACLS-5 Description: An automatic action is a component of the sensorimotor system that shows a meaningful response to an external stimulus. A change in the level of arousal is a specific response to an external stimulus that produces pain or has instinctive survival value. Meaning may be attached to any one of the five senses.			
1.0	ACLS-6 Title: **Identifying Painful and Comforting Cues** ACLS-5 Title: **Withdrawing**	ACLS-5 Description: A specific withdrawal from a noxious stimulus is usually the first response when coming out of a coma. Movement is more rapid than decorticate posturing and includes shoulder abduction (e.g., patient withdraws entire limb when hand is stimulated). Patient's responses may be inconsistent.			
1.0 Age equiv 0-5 months	The patient will: Withdraw from any stimulus, turn to or from stimulus, provide any response to stimulus. Grimace or vocalize with any sound. Open eyes wider. Have random arm movement. Suck, pucker lips. Alter breathing rate.	Garlic paste placed on a cotton swab	Hold beneath the nose for 15-30 seconds.		
		Onion juice placed on a cotton swab	Hold beneath the nose for 15-30 seconds.		
		N/A	Apply pressure in the palm of the hand on the ulnar side to test for grasp reflex (look for finger flexion and a strong grip that persists).		
			With patient in supine with head in midline and legs extended, tap on the medial surface of one leg to check for crossed extension reflex (look for adduction, internal rotation of the opposite leg, and plantar flexion of the foot, also on the opposite side).		
		Rough emery board or nail brush	Rub on arches of feet for 2-3 seconds to check for flexor withdrawal reflex (look for uncontrolled flexion response of the stimulated leg).		

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COLLABORATIVE REHAB FOLLOW-UP PROTOCOL

- Aegis Therapies has developed a protocol that promotes collaboration between the therapist and the individual(s) who will implement the follow-up plan for brain health.
- 10-day protocol, which can be customized
- Goal is to facilitate the best ability to function through meaningful activity
- Plan is derived from observation, interview, and collaboration
- Results in a follow-up plan that is agreed upon by all parties
- Return demonstration by the activity collaborator

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COLLABORATIVE REHAB FOLLOW-UP PROTOCOL (CONTINUED)

Day	Therapist's Activity
Day 1	Listen to concerns of patient and caregiver.
Day 2	Review activity section of medical record and have patient, family or caregiver complete the Interest Checklist[13]. Determine previous occupation.
Day 3	Complete cognitive and motor testing.
Day 4	Work with caregiver and patient to conduct environmental assessment, complete My Way[14], and implement behavior mapping as needed.
Day 5	Review and discuss draft rehab follow-up plan with caregiver and patient.

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COLLABORATIVE REHAB FOLLOW-UP PROTOCOL (CONTINUED)

Day	Therapist's Activity
Day 6	Determine who will actually implement the follow-up (CNA, nurse, Activities Director, Wellness Coordinator, family member, volunteer, etc.), conduct training and provide feedback.
Day 7	Determine additional components for the follow-up plan and conduct training as indicated.
Days 8 and 9	Have collaborator provide return demonstration and determine patient outcome.
Day 10	Incorporate final plan into medical record and have collaborator continue implementation[16].

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COLLABORATIVE REHAB FOLLOW-UP PROTOCOL FOR HOME HEALTH, OUTPATIENT, AL AND IL

Day	Therapist's Activity
Day 1	Listen to concerns of patient and caregiver. Review activity section of medical record and have patient, family or caregiver complete the Interest Checklist. Determine previous occupation. Complete assessment including cognitive and motor testing.
Day 2	Work with caregiver and patient to conduct environmental assessment, complete My Way[14,] and implement behavior mapping as needed. Review and discuss draft rehab follow-up plan with caregiver and patient.
Day 3	Determine who will actually implement the follow-up (family member, volunteer, neighbor etc.), conduct training and provide feedback.
Day 4	Determine additional components for the follow-up plan and conduct training as indicated. Determine additional components for the follow-up plan and conduct training as indicated.
Day 5	Assess follow though and prepare for discharge. Incorporate final plan into medical record and have collaborator continue implementation.

COLLABORATIVE REHAB FOLLOW-UP PROTOCOL (CONTINUED)

- **Unique aspects of the protocol**
  - Involves the patient/caregiver from the beginning with development of the program
  - Determines patients' interests through Interest Checklist[14] and My Way[15]
  - Incorporates a broader definition of who could be the collaborator for follow-up
  - Obtains return demonstration

ONGOING INVESTIGATION

- Investigation used a mixed methods analysis of data

- Feedback from therapists and collaborators on the surveys indicated patient positive results including
  - increased social interaction/ smiling and talking
  - leaving their room more often
  - sleeping in a chair less often
  - increased awareness and orientation
  - expressing needs and wants
  - demonstrating increased accuracy with 1-step directions

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FAILURE-FREE PROGRAMMING

- **Failure-free activities must:**
  - ✓ Be fun
  - ✓ Have no wrong answers
  - ✓ Encourage participation
  - ✓ Provide positive feedback
  - ✓ Stimulate language and cognition

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BENEFITS OF FAILURE-FREE PROGRAMMING

↓ Falls	↓ Pilfering	↓ Patient to patient altercations
↓ Negative behaviors	↓ Required medications	↓ Rate of cognitive decline
↑ Patient self-esteem	↑ Family satisfaction with patient outcomes	↑ Staff awareness of patient attributes

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WHAT ABOUT YOU?

What are some failure-free activities that you use in your facility?

- The key is that failure-free activities must:
  - ✓ Be fun
  - ✓ Have no wrong answers
  - ✓ Encourage participation
  - ✓ Provide positive feedback
  - ✓ Stimulate language and cognition

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ALLEN LEVEL 1 ACTIVITIES

Feeling Textures

- Materials: Large container, small items such as beans, rice, beads, macaroni, sand or birdseed
- Directions: Fill up a large container with beans, rice, beads, macaroni, sand or birdseed (can be mixed). Place the patient's hand in the container and pour, sift or move the rice side to side.

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ALLEN LEVEL 1 ACTIVITIES (CONTINUED)

Tracking with Eyes

- Materials: Contrasting colors of construction paper, scissors
- Directions: Cut a red circle out of construction paper. Glue the circle to a piece of white or black construction paper. Place the paper in front of the patient about 14 inches away from face. Encourage the patient to look at the paper and follow it with his/her eyes as you slowly move it left to right and up and down. Any contrasting color will suffice.

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ALLEN LEVEL 1 ACTIVITIES (CONTINUED)

Different Smells

- Materials: Several small containers, different smelling materials (e.g., ground coffee, perfume, baby powder, fruit, mint, cinnamon, ginger, herbs, flowers, etc.)
- Directions: Fill several small containers with different smelling materials such as what's listed above. Place each container under patient's nose and observe any reactions.

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ALLEN LEVEL 2 ACTIVITIES

Naming and Pointing to Body Parts

- Materials: None
- Directions:
  - Low 2s: Ask the patient to name various body parts (face, head, hair, leg, eyes, etc.)
  - Mid to High 2s: Ask the patient to name body parts

ALLEN LEVEL 2 ACTIVITIES (CONTINUED)

Singing Songs with Actions

- Materials: None
- Directions:
    - Encourage and cue patient to sing familiar songs.
    - Then introduce songs with associated actions, such as stomping feet, clapping hands, etc.

ALLEN LEVEL 2 ACTIVITIES (CONTINUED)

Naming Items

- Materials: Balloon, ball, cup
- Directions:
  - Ask patient to name the objects.
  - Then model an action or have the patient perform the action (such as hit the balloon, kick the ball, drink from a cup) and have the patient name the object (“balloon,” “ball,” “cup”).

ALLEN LEVEL 3 ACTIVITIES

Sorting Cards

- Materials: Regular or jumbo size playing cards
- Directions: Hand the patient a deck of cards (jumbo size if the patient has visual problems). Ask patient to sort the cards by color.

ALLEN LEVEL 3 ACTIVITIES (CONTINUED)

Naming Object and Verb

- Materials: Common objects such as cup, comb, fork
- Directions:
  - Have patient name the objects.
  - Perform an action with the objects and have patient name the object and the action, e.g., “drink from a cup,” “comb hair” and “eat with a fork.”

ALLEN LEVEL 3 ACTIVITIES (CONTINUED)

Sorting Beads

- Materials: Bag of beads, 1 to 3 containers
- Directions:
    - Give the patient a color of bead to find in the bag of beads and tell him/her to place that color bead in a container as he/she finds them.

      OR
    - Ask patient to find more than one color and place each color in its own container.

ALLEN LEVEL 4 ACTIVITIES

Finding the Object

- Materials: Common items such as book, pen, cup, eyeglasses, etc.
- Directions: Place objects in different locations within the room, but do not hide them. Ask the patient to scan the environment to locate the objects.

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ALLEN LEVEL 4 ACTIVITIES (CONTINUED)

Reality Orientation and Communication Activity

- Materials: Calendar; pictures of buildings, locations, rooms and similar objects; patient's schedule
- Directions: Have patient name and describe what he/she sees in the materials. Have patient provide opposites of some items. Discuss day, time, location. Have patient describe pictured objects using such terms as "same," "different," "higher," "lower," etc. Review patient's schedule or create a schedule, reviewing what has to be done to attend all scheduled activities.

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ALLEN LEVEL 4 ACTIVITIES (CONTINUED)

Memory Book

- Materials: Pictures and text related to the patient's life, paper, scissors, sleeve protectors
- Directions: Discuss events from the patient's life. Verify with family as needed. Obtain pictures and write simple text. Work together to construct the memory book.

ALLEN LEVEL 5 ACTIVITIES

Following the Recipe

- Materials: Boxed cake mix with instructions, eggs, and cooking oil or water as needed, cake pan(s), oven, oven mitt, spoon, spatula
- Directions: Give the patient the box with instructions and have him/her make the cake according to the directions. Provide assistance as needed to assure thorough completion of steps (such as thorough mixing of ingredients). When the cake is done, enjoy!

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ALLEN LEVEL 5 ACTIVITIES (CONTINUED)

Describing Work Activity

- Materials: Written directions for a work activity, materials as needed for the activity
- Directions:
  - Discuss employment history and current and past interests to determine the optimal “work” activity. Activities might include typing, recording information, delivering mail, sorting, stacking, labeling, rolling/pushing, using a hand truck and folding.
  - Have patient scan the directions and then direct another participant or group of participants in how to do the activity.

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ALLEN LEVEL 5 ACTIVITIES (CONTINUED)

Games in a Group

- Materials: Game that involves high-level memory activities, problem solving, and social interaction (such as Clue, Scrabble, Junior Monopoly, Simon, basic card games)
- Directions: Assure that the group understands the rules of the game, which can be modified if necessary to make the game enjoyable and ensure the group's success. Monitor social communication and interaction to assure that participants follow social conventions.

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ALLEN LEVEL 6 ACTIVITIES

Current Events

- Materials: Current newspaper or magazine or radio with current events program
- Directions: This can be done in individual or group sessions. Tell the participants to read—or listen to, if radio—current events story. Then prompt group discussion with pertinent questions that review the facts and implications of the events.

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ALLEN LEVEL 6 ACTIVITIES (CONTINUED)

Puzzles

- Materials: Crossword puzzles, Sudoku puzzles, jigsaw puzzles or word searches, etc.
- Directions: This can be done in individual or group sessions. Provide participants with the puzzle pages and instruct them to solve the puzzle. They can work individually or in teams. Then review answers and discuss various options that could have been considered for difficult to find answers.

ALLEN LEVEL 6 ACTIVITIES (CONTINUED)

Social Project

- Materials: Calendar, calculator, telephone book, telephone, season-appropriate decorations as indicated
- Directions: Instruct a group to plan a seasonally appropriate activity or community outing. Have the group begin by discussing possible activities and then plan the activity, check costs against the budget, invite others to attend, decorate as needed, etc. After planning the activity, the group will attend the activity together and meet afterward to discuss successes and opportunities for improvement.

POP QUIZ

1. **What is the lowest Allen level that would be appropriate for:**
    - **Balloon toss?**
    - **Card and bead sorting?**
    - **Memory book?**

2. **What unique failure-free feature do the Allen levels all have in common?**

POP QUIZ

1. What is the lowest Allen level that would be appropriate for:
   a. Balloon toss? ACL 2
   b. Card and bead sorting? ACL 3
   c. Memory book? ACL 4
2. What unique failure-free feature do the Allen levels all have in common?

✓ They focus on what the patient can do at each level.

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FAILURE-FREE PROGRAM EXAMPLES

- Sensory stimulation
- Activity based on past and/or current interests
- Music
- Physical exercise
- Brain Storms: A Cognitive-Linguistic Stimulation Program for Clients with Dementia
- Montessori-based activities
- Memory Magic

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FAILURE-FREE PROGRAM EXAMPLES (CONTINUED)

- GreyMatters: Reaching Beyond Dementia app
- It's Never 2 Late (iN2L)
- Journaling
- Memory book or memory wallet
- Reading and writing
- Soft/fidget books and blankets for Alzheimer's and dementia
- Falls prevention movement patterns
- Brain Storms [16]

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FAILURE-FREE PROGRAM EXAMPLES (CONTINUED)

- Puzzles
- Red Light, Yellow Light, Green Light Program

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SENSORY STIMULATION

- Sensory Motor Assessment (SMA) is being developed to indicate Allen Cognitive Levels for patients with low cognitive functioning. It also suggests treatment goals and activities.
- Provide various sensory stimuli (five senses) to obtain a response from the patient. Remaining abilities or capacity is activated through sensory stimulation.
- Design the program in a way that gives meaning to the patient's life.
- Sensory stimulation can focus on improving or maintaining the patient's status.

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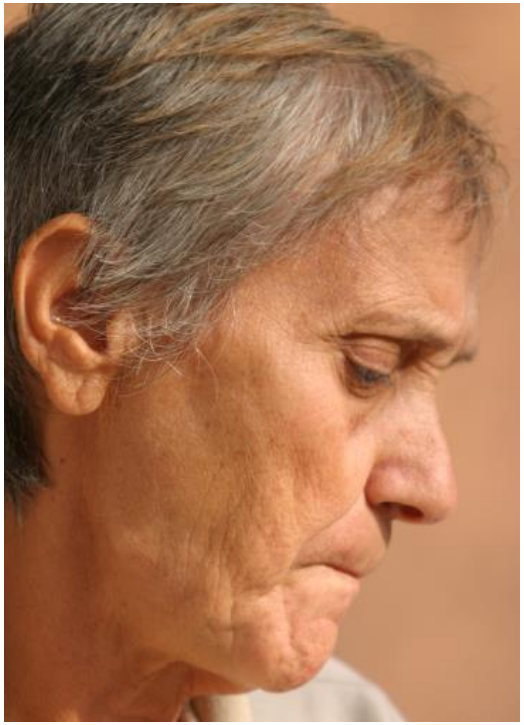
SENSORY STIMULATION (CONTINUED)

- Set up organized, frequent stimulation periods with reduced environmental distractions.
- Present stimuli one at a time, allowing time for response.
- Record motor/verbal response.
- Precaution: Be aware of sensory overload.
- Group/individual programs
- Morning care
- Bedside kits



SENSORY STIMULATION (CONTINUED)

- Identify cues that are pleasant and meaningful
    - Perfume, lipstick, lotion, flowers, air fresheners, pictures, memory wallet, music, radio, recordings of voices of family members, home movies
- Set up a sequence of stimulation that can be maintained.
- www.radiolovers.com
- Refer to PT/OT, nursing, or physician if you notice signs of contracture.

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MONTESSORI-BASED ACTIVITIES[17,18]

- Offer invitation to participate.
- Ask for patient's help and opinion.
- Include a physical component with the activity.
- Provide enough cueing and assistance to allow the task to be failure-free and enjoyable.
- Post activity: Patient has control through choice. He/she may choose to repeat the activity or choose to complete a different activity.
- A variety of programs and activities have a Montessori approach.

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MEMORY MAGIC PROGRAM[19]

- Each patient in the group has a program board.
- Leader and patients read a clue (such as “Butcher, baker, candlestick…”) and participants give the answer (“maker”).
- Each participant then looks for the word “maker” on his/her board and pulls down the shade if the word is there.
- Includes familiar phrases, items from stories and movies, and music.

Image used with written permission of Memory Magic

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MEMORY MAGIC PROGRAM (CONTINUED)[19]

- Provides opportunities for reading, recall, word identification, singing, and fine and gross motor skills.
- Encourages reading, reminiscing, and social interaction.
- Reduces disruptive behavior during the activity.
- Promotes positive emotions.

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FALLS PREVENTION MOVEMENT PATTERNS

- **Look Up/Reach Up**
  - Neck and trunk extension, leaning backward, shrugging shoulders
- **Reach High/Low**
  - Crossing midline, trunk rotation
  - Turning the other cheek, reaching toward the floor
- **Standing and Stepping**
  - Weight shifting
- **Strengthening During Activity**
  - Leaning on arms, extended standing time, knee bends, standing on one leg

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GREYMATTERS: REACHING BEYOND DEMENTIA APP[20]

- A tablet application to improve quality of life of persons with dementia and their caregivers.
- Interactive life storybook paired with music and games.
- Taps into remaining abilities to help patient stay engaged and connected.
- Activities:
  - Create a personalized life storybook full of long-term memories. Include pictures, audio, and simple text.
  - Record “I Remember” videos when memories occur using the app together. Record other videos when special moments occur.
  - Look through material with entertainers, films, history and pop culture from the patient’s generation.

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GREYMATTERS: REACHING BEYOND DEMENTIA APP (CONTINUED)[20]

- Activities (continued):
  - Load an audiovisual reminder related to frequent topics of confusion. This can be for questions the patient frequently asks.
  - Listen to music and play games.

- Individualized material can be stored for different patients.

- The app also includes Alzheimer's resources and tips for caregivers.

IT'S NEVER 2 LATE (IN2L)[21]

- Easy to use touch screen.
- Prompts communication, activities and physical movement.
- Keeps patients engaged longer.
- Can be used while sitting or standing.
- Improves:
  - Balance and coordination
  - Problem solving
  - Memory
  - Safety, strength, and endurance
  - Motor control, especially arms and hands
  - Range of motion and proprioception
  - Sequencing, communication and word finding

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IN2L (CONTINUED)[21]

- Allows patients to use the internet for sending and receiving pictures and email messages.
- Can create a video care plan.
- Patient can draw or write on the touch screen with fingertip.
- Patient can participate in activities designed for his/her cognitive level.
- Improves socialization, communication and quality of life.
- Provides cognitive stimulation and enhances independence.

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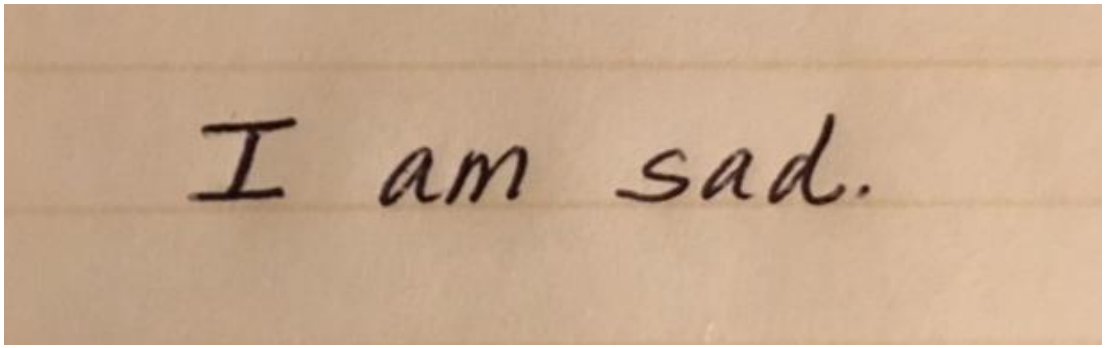
JOURNALING

- Assess for interest.
- Make personalized journal pages.
- Educate patient on option for private journaling which cannot be read by anyone but allows a release of stress and other emotions in a harmless manner.



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MEMORY BOOK OR MEMORY WALLET[22]

- Conduct interview with patient or family to gather details about the patient's life. If client provides the information, verify it with a family member.
- Make sure the font is large enough for the patient to read it. (Use 72 to 100 size font.)
- Use sheet protectors that do not stick to ink and do not have sharp corners that could lead to skin tears.
- Hole-punch and put together with a ring or place in a 3-ring binder.
- The memory book or wallet can also be used to assess reading ability and reading comprehension.

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MEMORY BOOK OR MEMORY WALLET (CONTINUED)[22]

- This helps family members see it is acceptable to have the same conversation each visit if it brings joy to the patient.
- Assists with reading, recall, cognitive processing, communication and socialization.
- Important to determine where the memory book/wallet will be kept.

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PUZZLES

- Crosswords with or without cues
- Word search
- Unscramble the word
- Fill in the vowel
- Matching
- Sudoku
- Jigsaw puzzles

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OTHER AREAS FOR REHAB TO ASSIST (PT, OT, SLP)

- **Patients with cognitive impairments may also need therapists' help with other concerns, such as:**
  - Falls management
  - Continence management
  - Diabetes management
  - Self-care
  - Behavior management
  - Medication management
  - Seating and positioning
  - Communication
  - Swallowing
  - Community integration

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CASE STUDIES

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EARLY STAGE DEMENTIA:
MILD COGNITIVE DEFICIT

- Lives in ILF and participates in activities.
- Beginning to have difficulty differentiating between items that are similar.
- Still does self-care.
- Manages his medications but is starting to have trouble. Still cooks basic meals.

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MIDDLE STAGE DEMENTIA: MODERATE COGNITIVE DEFICIT

- Lives in a SNF.
- Still feeds herself but does not sit through a meal and is starting to lose weight.
- Wanders much of the day.
- Enjoys working with her hands but may not be able to complete an activity.

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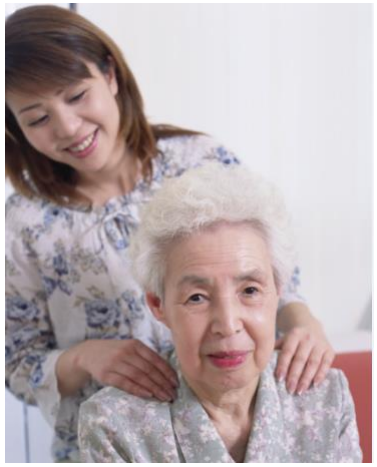
LATE STAGE DEMENTIA:
SEVERE COGNITIVE DEFICIT



- Lives at home with her son or daughter and attends adult day care.
- Dependent in all areas of self-care.
- Unable to ambulate.
- Able to do auditory and visual tracking.
- Can bring her hands to her mouth with some help.
- Can grunt or make noise as a form of communication.

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IN SUMMARY:
Remember the Person

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