

A NEW SENSORY MOTOR ASSESSMENT

Angela Edney, MSA, OTR/L
Jackie Maynor, OTR/L
Tamera Paulk, OTR/L

aegis
therapies

GOALS/OBJECTIVES OF THIS SESSION

Following this session, you will be able to:

- Discuss potential implications of new federal post-acute care legislation in regards to cognitive programming
- Describe how to use a new structured sensory motor observation tool to make evaluation and treatment planning decisions for adults with low level cognitive functioning utilizing the Allen Cognitive Disabilities Model
- Use a standardized protocol for implementation of sensory stimulation programs for patients with advanced dementia.

2

AGENDA

- Regulations
- History of the Sensory Stim Assessment
- New Sensory Motor Assessment Tool and Related Psychometric Data
- Implication for Treatment Planning Included Sample Goals and Documentation
- Collaborative FMP Protocol
- Case Studies

3

IN A NUTSHELL...

- With aging baby boomers, there is a higher prevalence of dementia, which often progresses to low functioning and may lead to psychotropic drug use in skilled nursing facilities.
- In some skilled nursing facilities, patients with advanced dementia are either left in their rooms in bed or sit long durations with no stimulating activity. Thinking these patients cannot do anything, staff, family, and caregivers often do not respect these patients' strengths.
- Some therapists have difficulty evaluating low level patients and developing meaningful treatment plans.
- Sensory Stimulation Kits I and II are no longer commercially available.
- This has left a gap in assessment procedures for severe cognitive deficits.
- Aegis Therapies has been developing and piloting a new Allen Cognitive Level Sensory Motor Assessment and a Collaborative Rehab Program Follow-up Protocol for a few years.
- That development process will be shared during this session.

4

REGULATORY RATIONALE

- Institute of Healthcare Improvement's Triple Aim
 - Improve health
 - Enhance patient outcomes and experience
 - Reduce per capita cost of healthcare
- CMS goal of:
 - Better Care
 - Smarter Spending
 - Healthier People

REGULATORY RATIONALE (continued)

- Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014
 - Standardized assessments for critical care areas
 - One of those areas is cognition



REGULATORY RATIONALE (CONTINUED)

- Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014
 - Requires standardized reporting patient assessment data that can be compared across post-acute care settings
 - Reporting of cognitive function was to have begun in SNFs and IRFs on October 1, 2016, but no details regarding this scoring were distributed

Functional status, cognitive function, and changes in function and cognitive function

SNF: October 1, 2016
 IRF: October 1, 2016
 LTCH: October 1, 2018
 HHA: January 1, 2019

7

REGULATORY RATIONALE (continued)

- Requirements for Long-Term Care Facilities' Participation in Medicare and Medicaid
 - Eliminates unnecessary psychotropic medications in SNF
 - Requires provision of necessary behavioral health care and services
 - Requires SNFs to have sufficient staff trained to provide behavioral services, including nonpharmacological approaches

REGULATORY RATIONALE (CONTINUED)

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

800000 Federal Register / Vol. 81, No. 197 / Tuesday, October 4, 2016 / Rules and Regulations

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Center for Medicare & Medicaid Services

45 CFR Parts 484, 481, 482, 483, 485, 486, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

REGULATORY RATIONALE (continued)

- Requirements for Home Health Agencies' Participation in Medicare and Medicaid
 - Establishes new standard "contents of the comprehensive assessment"
 - Requires assessment of psychosocial and cognitive status

REGULATORY RATIONALE (CONTINUED)

PERSON – CENTERED CARE

- Framework developed by Thomas Kitwood
 - Patient with dementia is the focal point of care
 - Patient's values and preferences are considered
 - Goal is to enable patients with cognitive issues to lived at their best functional and emotional potential
 - Objective is to facilitate best abilities at every stage of dementia

11

REGULATORY RATIONALE (CONTINUED)

PERSON - CENTERED CARE

- Objective – Care to facilitate the best ability to function
 - Considerations
 - Quality of Life
 - Well-being
 - Dignity
 - Values
 - Considerations
 - Purposeful Living
 - Opportunity to make choices
 - Self – determination

12

REGULATORY RATIONALE (continued)

483.24 Quality of Life

Each resident must receive and the facility must provide the necessary care and services to attain or maintain the highest practicable physical, mental, and psychosocial well-being.

The facility must provide an ongoing program to support residents in their choice of activities to meet the interests of and support the physical, mental, and psychosocial well-being of each resident.

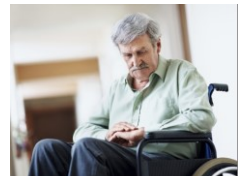


REGULATORY RATIONALE (CONTINUED)

483.40 Behavioral Health Services (continued)

The facility must ensure that:

- A resident who displays or is diagnosed with dementia receives the appropriate treatment and services.
- A resident who does not have a mental or psychosocial adjustment difficulty does not display a pattern of decreased social interaction and/or increased withdrawn, angry, or depressive behaviors.



REGULATORY RATIONALE (continued)

Some CMS examples of non-pharmacological approaches:

- Addressing underlying causes of distressed behavior such as boredom and pain
- Accommodating behavior and needs through activities reminiscent of lifelong work or activity patterns (such as providing early morning activity for a farmer used to awakening early)
- 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



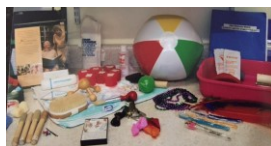
HISTORY OF ALLEN SENSORY MOTOR ASSESSMENT

- **Allen Diagnostic Module Sensory Motor Stimulation Kit I and Kit II** (Blue & Allen, 1992)
 - Developed by Tina Blue and Claudia Allen in early 1990s
 - Available from S&S Worldwide for over \$200 until early 2010s
 - Two versions
 - Kit I was for ACL 0.8 through 2.2
 - Kit II was for ACL 2.2 through 3.2
 - No longer commercially available
 - Tina Blue asked Angela Edney to revise the kits in 2010
 - Aegis Therapies has been working to develop the new Sensory Motor Assessment (SMA) since 2013-2014 in concert with Claudia Allen
 - S&S is willing to produce a new kit when final, but we are concerned about cost

16

FORMER SENSORY STIMULATION KIT CONTENTS: BOOKLET

- **Booklet with information for certain modes**
 - Functional goals, therapist goals, and treatment methods to improve function
 - Sensory stimulation
 - Self-care
 - Mobility
 - Considerations and precautions
 - Observed motor responses
- **Physical kit with materials to use for sensory stimulation**
- **Rating sheets**



17

FORMER SENSORY STIMULATION KIT I CONTENTS: PHYSICAL KIT

- **Physical kit with materials to use for sensory stimulation**
 - Kit I (0.8 – 2.2)
 - Auditory: whistle, bell, clicker, cassette tape
 - Tactile: reusable ice pack, fleece ball, abrasive brush, vibrator, feathers
 - Visual: flashlight, mirror, brightly colored heavy duty balloons, brightly colored feathers
 - Olfactory: empty containers for liquid odorants to be put into, eyedropper to apply scent to cotton balls
 - Mobility: balloons, slow motion ball

(continued)

18

FORMER SENSORY STIMULATION KIT I CONTENTS: PHYSICAL KIT (CONTINUED)

- **Physical kit with materials to use for sensory stimulation**
 - Kit I (0.8 – 2.2)
 - List of other items to acquire, including:
 - Liquids with scent and flavor (lemon juice, bitters, water solution sale, peppermint and wintergreen breath fresheners, garlic juice, onion juice)
 - Pureed food
 - Ice cream
 - Thickened liquids
 - Coated bite block
 - Flat bowl/ed spoon
 - Adapted cups and utensils

(continued)

19

FORMER SENSORY STIMULATION KIT I CONTENTS: PHYSICAL KIT (CONTINUED)

- **Physical kit with materials to use for sensory stimulation**
 - Kit I (0.8 – 2.2)
 - List of other items to acquire, including (continued from previous slide):
 - Cigarette butts
 - Cotton balls and cotton gauze
 - Spices
 - Cologne
 - Tobacco
 - Incense
 - Brightly colored objects (balloons, stuffed animals, snow globes, high contrast mobiles, family pictures, favorite objects from patient's home)

20

FORMER SENSORY STIMULATION KIT II CONTENTS: PHYSICAL KIT

- **Physical kit with materials to use for sensory stimulation**
 - Kit II (2.2 – 3.2)
 - Cassette tape with patriotic songs and marches
 - Memory Lane cassette tape
 - 4-inch rattle
 - 9-inch balloon
 - Large slow motion ball
 - Beach ball
 - Old time favorites sing-along cassette tape with vocal lyrics book
 - Cassette tape with music that uses simple association motions
 - Can-do tubing (6 yards of elastic exercise bands)

(continued)

21

FORMER SENSORY STIMULATION KIT II CONTENTS: PHYSICAL KIT (CONTINUED)

- **Physical kit with materials to use for sensory stimulation**
 - Kit II (2.2 – 3.2)
 - Plastic tubes (bulk pack hoops)
 - Parachute and parachute activity cassette tape
 - Bean bags
 - Yellow, orange, and blue spot markers
 - List of other items to acquire, including: an optional reminiscing box, stuffed animals, posture balls, laundry basket, movement scarves, basketball sets, Velcro lap tray



22

BENEFITS OF FORMER SENSORY STIMULATION KITS I AND II

- Therapists used these kits for years
- The kits guided beneficial treatment programming
- Sensory stimulation programs prescribe activities to facilitate the best ability to function and provide a cognitive exercise program
- Many items could be gathered without having to purchase them
- The kits were the main source of assessment and program materials for advanced dementia



23

LIMITATIONS OF FORMER SENSORY STIMULATION KITS I AND II

- Cost (over \$200 for each kit)
- Therapists had questions about administration which led to inconsistency
- Therapists were unsure how to score
- S&S Worldwide stopped making some of the items and made substitutions, some of which had poor quality
- Cassette tapes are not practical today



24

THE NEW SENSORY MOTOR ASSESSMENT: THE GOAL

- The goal is to:
 - Develop a standardized cognitive assessment tool for low level patients using the Allen Cognitive Disability Model
 - Include standardized instructions
 - Include standardized test stimuli
 - Include recommended treatment goals
 - Include recommended treatment activities to accomplish the goals
 - Eventually validate the revisions through evidence-based practice.

25

THE NEW SENSORY MOTOR ASSESSMENT: THE DEVELOPMENT PROCESS

- Face/content validity:**
 - Task force drafted a Sensory Motor Assessment (SMA) which was piloted with PT, OT, and SLP in skilled nursing facilities.
 - Task force reviewed feedback from PTs, OTs, and SLPs.
 - Task force reviewed each test item to determine what it actually assesses.
 - This resulted in changes to some test items.

(continued)

26

THE NEW SENSORY MOTOR ASSESSMENT: THE DEVELOPMENT PROCESS (CONTINUED)

- Concurrent validity:**
 - Unable to identify a time-efficient assessment providing a comparable depth of scoring potential for patients with low cognitive functioning.
 - PTs, OTs, and SLPs working in skilled nursing facilities provided feedback to indicate whether it is a valid assessment of response to sensation and a reflection of functional cognition.
 - Items from developmental scales were included in the SMA.
 - A portion of the tool was designed to assist therapists in approximating the patient's cognitive level to indicate a starting point with the assessment.
 - Specific information was added regarding objects to use, instructions for their use, and patient responses to observe.

27

THE NEW SENSORY MOTOR ASSESSMENT: THE DEVELOPMENT PROCESS (CONTINUED)

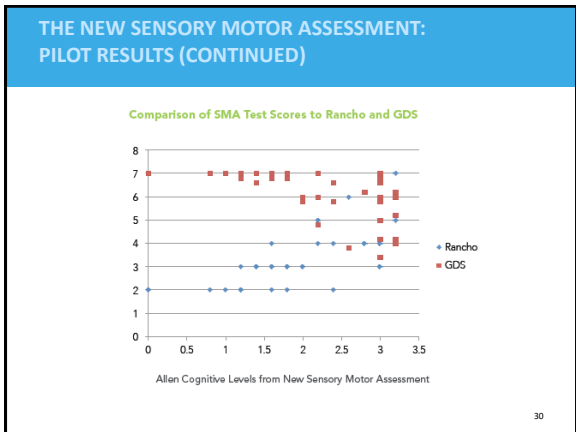
- Concurrent validity (continued):**
 - Conducted a pilot to determine concurrent validity
 - Therapists in 14 skilled nursing facilities assessed 43 patients
 - They administered the new SMA, the Rancho Los Amigos Level of Cognitive Functioning Scale, and the Brief Cognitive Rating Scale (BCRS), with the average BCRS scores yielding the Global Deterioration Scale (GDS) score (Reisberg et al., 1983).
 - Scores from the three tests were compared and correlated using a Spearman rank correlation.

28

THE NEW SENSORY MOTOR ASSESSMENT: PILOT RESULTS

- Concurrent validity pilot (continued):**
 - The SMA has a wider range of scores than the Rancho Los Amigos or the GDS.
 - When all measures were ranked according to low functioning to high functioning:
 - Spearman rank correlation showed a very strong correlation between the SMA and the Rancho Los Amigos (0.82).
 - Spearman rank correlation showed a strong correlation between the SMA and the GDS (0.74)

29



THE NEW SENSORY MOTOR ASSESSMENT: PILOT RESULTS (CONTINUED)

- Therapists gave feedback about patient responses during cognitive testing:
 - Increased level of alertness
 - Increased eye contact and pupil dilation
 - Increased respiratory rate, heart rate, and blood pressure after application of stimuli
 - Increased facial expression
 - Increased spontaneous arm movement
- Therapists gave positive feedback about the SMA, stating that:
 - Therapists appreciated its instructions
 - It gave direction on where to start
 - It used inexpensive items
 - It offered a framework to build a treatment plan

31

INTER-RATER AND INTRA-RATER RELIABILITY TESTING EXAMPLE

- Two OTRs completed the SMA on 3 separate dates on Patient A. Out of the 20 items tested, 0.85 of the items tested-retested were scored identically. All items tested were initiated at the same starting point of the assessment.
- One SLP completed test-retest on 2 different dates on Patient B. SLP test-retest consistency was 0.75 on the same patient.
- Kappa coefficient statistical analysis was used to determine the reliability of the scores for OT and SLP due to the use of nominal data. The results indicate significant agreement within OT and moderate agreement within SLP. Each therapist completed the assessments at approximately the same time of day to further control variables. All therapists were present for training on the SMA at the same time with the same trainer

32

THE SENSORY MOTOR ASSESSMENT: A LOOK INSIDE

- Standardized instructions
- A screening tool to indicate the patient's starting point in the test
- A list of stimuli
- A crosswalk from the score to suggested treatment goals

Item	Response	Start of Response to Cue	Response	Start of Patient's Response	Start of Patient's Response
0-3	Response	Start of Response to Cue	Response	Start of Patient's Response	Start of Patient's Response

33

THE SENSORY MOTOR ASSESSMENT: ITEMS NEEDED

- List of 78 items to administer every line of the test
- Most can be found nearby or purchased inexpensively
- Some test items do not use objects
- Specific Allen levels need specific objects

Item	0	1	2	3
Allen Sensory Motor Assessment (Level 2016 Version)				

34

THE SENSORY MOTOR ASSESSMENT: ITEMS NEEDED (CONTINUED)

Item	Levels Tested			
	0	1	2	3
Stopwatch	X	X	X	X
SMELL				
Cotton swabs	X	X		
Garlic paste		X	X	
Onion juice	X	X		
Peppermint		X		
Patient's cologne		X		
Ground cinnamon		X		
Black coffee		X		

35

THE SENSORY MOTOR ASSESSMENT: BEFORE YOU START

- Determine current physical, visual, and hearing status. Note that the patient may not respond to some items due to limitations in motor, vision, and hearing skills.
- Remember that you are required to test at least 4 items for each mode.
- Interview family and/or caregivers prior to initiation of the session to establish and honor the patient's personal preferences. Select meaningful stimuli.
- If you are testing 1.8, download Media Player to your mobile device. Then you can click on the link to play the laughter sound.
- Monitor patient for changes in vital signs at beginning and end of the session. Check heart rate (HR), respiratory rate (RR), blood pressure (BP), and dilation/constriction of pupils.
- If patient has a tracheostomy tube, obtain medical clearance to plug tracheostomy for the purpose of olfactory stimulation.

36

THE SENSORY MOTOR ASSESSMENT: DETERMINE THE STARTING POINT

- Use the screening items on the Starting Level for Assessment Tool to determine the approximate starting point
- Start your assessment at that mode, and also test above and below that mode
- Administer as many items as possible considering the patient's safety and physical status
- Administer at least 4 items for each mode you are testing

Appropriate Level	Response	Item or Object to Use	Instructions	Mark if Patient Responded	Brief Description of Patient's Response
Level 0	Low	No response	Touch patient's face and abdomen and ask "how does that feel?"	0.0	
Level 0	High	Flinger reflex and/or strong grasp reflex	Touch patient's face and abdomen and ask "how does that feel?"	0.0	
Level 1	Low	Withdrawal with aversive facial expression	Apply pressure to the palm of the hand on the ulnar side to test for grasp reflex	1.0	
	High	Any evidence of withdrawal to stimulus, such as aversive facial expression	Apply pressure to the palm of the hand on the ulnar side to test for grasp reflex	1.0	
Level 1	Low	Head extension at midline and head flexion at midline	Place hand on patient's head	1.0	
	High	Head extension at midline and head flexion at midline	Place hand on patient's head	1.0	
Level 0	Low	Stiff neck and head support for 1 minute	Place hand on patient's head	0.0	

37

THE SENSORY MOTOR ASSESSMENT: CONDUCT THE ASSESSMENT

Level 1	ACLS 4.1 Sensory Experiences	ACLS 3.2 Perception	ACLS 4.2 Identifying Painful and Controlling Care	ACLS 3.5 Neurologic
1.0	Automatic Actions	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 to a specific response to an external stimulus that produces pain or has ineffective survival value. Meaning may be attached to any one of the five senses.	ACLS 5.1 Withdrawal	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	The patient will:	Stiff neck	Withdraw from any stimulus, turn to or from stimulus, turn to or from stimulus, SOB (is any response to stimulus)	Hold beneath the nose for 15-20 seconds
Age equiv 0-5 months	Grasp or vocalize with any sound.	Open eyes wider	Have random arm movement.	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)
	Suck, pucker lips			When patient inspires 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)
	Alter breathing rate.			Rough emery board or nail brush

38

THE SENSORY MOTOR ASSESSMENT: CONDUCT THE ASSESSMENT (CONTINUED)

Allen Mode	Response	Item or Object to Use	Instructions	Mark if Patient Responded	Brief Description of Patient's Response	
1.0 (cont.)		N/A	Turn head to one side to check for asymmetrical tonic neck reflex (look for extension of arm and leg on the face side and flexion of arm and leg on the skull side)			
			With patient in supine with head and neck in midline, flex arm and leg to check for tonic labyrinthine reflex (look for increase in extension tone)			
			Apply firm pressure with your hands for 1-2 seconds to each arm and each leg			
			Push down on collar of nail bed on each thumb for 1-2 seconds			
			Roll back and forth with your fist on the sternum for 2-3 seconds			
			Rough emery board or nail brush	Roll on palms of hands for 2-3 seconds		
			Stiff neck or crossed legs	Roll on inside of forearm for 1-4 seconds		
			Flange	Shine flashlight briefly into each eye		
			Ball	Ring ball 3 times for each side near ear. Wait 15-20 seconds and repeat this process twice if no response is observed		
			Large heavy book	Spin the book that near the face.		
	Tongue depressor or cool lemon glycerin swab	Stroke front of lips to check for rooting reflex (mouth opens or sucking begins)				
		Touch tongue or lips to check for tongue reflex (look for suck, suckle reaction)				
		Touch with pressure on gums to check for bilabial reflex (suck for bile)				
		Touch pharynx or base of tongue to check for gag reflex (look for gag even if weak)				
	Pinch tendon	Roll swab or stick back into sockbottom tin for 2-3				

39

THE SENSORY MOTOR ASSESSMENT: CONDUCT THE ASSESSMENT (CONTINUED)

- Explain procedure to patient, and apply stimuli per instructions below.
- Enter a mark in the box for items the patient responds to. Then briefly describe the response given by the patient.
- Allow a 30- to 60-second delay between providing different types of stimuli until you determine the patient's response delay.
- Stop testing when the patient can do only 1-2 items in modes. Then the score will be the mode prior to this where the patient was able to complete at least 4 items in the mode.
- Terminate a stimulus with overt signs of extreme negative responses.
- If you obtain a response on the first visit there is no need to repeat that test item. If the patient does not respond to a test item on Day 1, you could try that item on a different day or at a different time of day.
- Monitor patient for changes in vital signs at the end of the session (to compare to vital signs obtained at the beginning of the session).

40

THE SENSORY MOTOR ASSESSMENT: CONDUCT THE ASSESSMENT (CONTINUED)

Assessment Day	Time	Patient's Position	HR (bpm)	RR (bpm)	BP	Pupils (change in dilation or constriction)
1	Date	Supine	Beginning			
		Sitting	End	/	/	/
2	Date	Supine	Beginning			
		Sitting	End	/	/	/
3	Date	Supine	Beginning			
		Sitting	End	/	/	/

41

THE SENSORY MOTOR ASSESSMENT: AT COMPLETION OF ASSESSMENT

- Review score sheets to determine the highest mode at which the patient responds to 60% or more of the items attempted (with at least 4 items attempted per mode that was tested). This is the patient's score.
- The SMA can be administered again in order to document gains for patients who are working toward restoration of function.

42

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS

- A crosswalk from the Allen Cognitive Level score obtained with the SMA to a selection of treatment goals was developed.
- Sample goals:

Mode	Sample Goal
1.0	<p>Will withdraw from noxious stimuli to demonstrate interaction/reaction with the environment 3 out of 5 trials.</p> <p>Will move facial muscles to communicate a positive/negative appraisal of a stimulus in 3 out of 5 trials.</p> <p>Caregiver will independently and safely complete (full available range) passive range of motion exercises utilizing (ENTER technique such as NDT, prolonged stretch, relaxation techniques) without patient negative responses such as (ENTER grimacing, crying out) in order to prevent decline in ROM.</p>
1.2	Pt. will use nonverbal vocalizations/facial expressions in response to visual, auditory, or tactile stimuli in 5 out of 10 trials in order to establish a consistent method of nonverbal communication with staff.

43

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
1.4	<p>Pt will turn head to locate visual, auditory, or tactile stimuli 5 out of 10 trials in order to improve ability to track objects and look at caregivers and family members.</p> <p>Pt will turn head to locate visual, auditory, or tactile stimuli 5 out of 10 trials to establish a consistent interactive approach between patient and caregiver in preparation for establishing a nonverbal communication system.</p> <p>Pt will (ENTER Grunt, grimace, and/or smile) to communicate food preferences in 6 out of 10 trials.</p>
1.6	Pt. will feed self for portions of a meal with hand-over-hand assistance 5 out of 10 trials.

44

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
1.6	<p>Pt. will turn head, open mouth, or swallow when food is presented with hand-over-hand feeding in 6 out of 10 trials in order to improve PO intake and nutrition.</p> <p>Pt. will brush teeth with hand-over-hand assistance 2 out of 4 trials.</p> <p>Pt. will briefly grasp or hold object placed in hand 3 out of 5 trials to improve motor skills</p>
1.8	<p>Pt. will feed self finger food when placed in hand with verbal cues 2 out of 5 trials.</p> <p>Pt. will demonstrate active participation upon request in 2 out of 5 brief recreational activities such as tapping a balloon or ball to (ENTER prevent decline in or increase) upper extremity range of motion, strength, and control needed for ADL's.</p>

45

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
1.8	Pt. will hold buttocks up for 5 seconds with verbal and physical prompts to cooperate with bed pan use, dressing, and hygiene to prevent muscle atrophy and maintain skin integrity.
2.0	<p>Pt. will complete transfer from wheelchair to bed with verbal cues that align with cognitive level (e.g. "Caregiver counts to 3") with minimal assistance and gestural and tactile cues.</p> <p>Pt. will respond to basic yes/no questions with verbal prompt that corresponds to cognitive level to express food preferences and comfort 6 out of 10 trials.</p> <p>Pt. will use gestures such as waving, pointing, shrugging, nodding, etc., to communicate food preferences and comfort in 6 out of 10 trials.</p> <p>Pt. will sit on edge of bed with moderate physical assistance for 3 minutes to improve trunk control and strength for ADL's.</p>

46

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
2.2	<p>Name basic body parts when touched with verbal prompts that align with cognitive level to communicate with caregiver about dressing with 70% accuracy.</p> <p>Will cooperate with hand over hand tooth brushing in 3 out of 5 trials to perform oral hygiene with cueing from caregiver that corresponds with cognitive level to initiate/sustain actions, sequence steps to complete activity.</p> <p>Pt. will feed self finger-foods and drink from cup in 3 out of 6 trials with cognitive cueing that aligns with cognitive level to initiate/sustain actions and sequence steps to complete activity, to prevent weight loss/dehydration.</p>
2.4	Pt. will feed self 50% of meal with utensils and drink with set-up and cues that align with cognitive level to initiate, sequence, and sustain activity to prevent weight loss/dehydration.

47

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
2.4	<p>Following patient-specific scheduled voiding program, pt. will have no incontinence episodes x 3 days using verbal prompts and cues from caregivers that align with cognitive level.</p> <p>Pt. will use one-word utterances in 3 out of 5 trials to communicate preferences/needs when given a choice of two items during dressing with prompts from caregivers that align with cognitive level.</p>
2.6	<p>Will follow caregiver to a designated location (toilet, bedroom, dining room) 3 out of 5 trials with caregiver gestural and verbal cues that align with cognitive level.</p> <p>Pt. will remove upper body clothing with verbal cues aligned with cognitive level to sequence steps in 3 out of 6 trials.</p> <p>In order to prevent falls and injury, pt. will step up, down, over curbs or steps, and other below knee barriers, with CGA and cueing from caregiver that aligns with cognitive level.</p>

48

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
2.6	Caregiver will appropriately select activities and cue patient based on cognitive level to allow for participation in 3 out of 5 activities such as (ENTER type of activities such as playing catch) to promote ability to function in self cares at highest level.
2.8	Caregiver will utilize behavioral strategies based on cognitive level to limit undesired behavior of (ENTER undesired behavior) to (ENTER #) occurrences per day. Pt. will feed self 75% of the meal with set-up and cueing aligned with cognitive level to sequence and sustain action to prevent weight loss. Pt. will transfer safely using grab bar for support with trained caregiver cues that align with cognitive level and CGA. Will release gross grip when given time to feel secure with trained caregiver cues that align with cognitive level on 3 out of 5 trials.

49

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
2.8	Utilize sustained gross grasp with grab bars for support during toileting/dressing activities in 3 out of 5 trials with trained caregiver cues that align with cognitive level. Pt will identify common objects and use associated verbs to communicate use and function of objects with 70% accuracy to improve communication with caregiver during self cares. Will participate in activities program, such as (ENTER activities, such as kickball, ball toss), in 3 of 5 trials, with trained caregiver cues that align with cognitive level to initiate/sustain action to promote highest level of functioning in self cares.
3.0	Will perform toileting with cues from caregiver that align with cognitive level to initiate/sustain actions, sequence steps for competing peri-care, hygiene and clothing management in 2 out of 3 trials. Will brush/comb hair briefly in 3 out of 5 trials with caregiver cues that align with cognitive level.

THE NEW SENSORY MOTOR ASSESSMENT: THERAPY GOALS (CONTINUED)

Mode	Sample Goal
3.0	Will pick up, grasp, hold, utilize, and be able to communicate use of common objects used for (ENTER feeding, self-care) with cues from caregiver that align with cognitive level in 3 out of 6 trials.
3.2	Distinguish between familiar objects by size, shape, or color with 60% accuracy to assist in selecting objects for self-care tasks. Pt. will write/scrabble name with dominant hand with cues that align with cognitive level to initiate and sustain the activity in 2 out of 4 trials. Pt. will propel W/C with LE's with cues that align with cognitive level to initiate and sustain actions necessary to steer chair. Will dress upper body when garment handed to patient with cues that align with cognitive level to complete the task in 3 out of 5 trials.

51

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
1.2	Provide a quiet period before and after sensory stimulation. Start with olfactory stimulation and then proceed to visual, tactile, and auditory stimulation. Use the types of stimulation that the patient responds to most consistently. When selecting stimulation types, consider the patient's occupational profile and likes. Examples: rose, gloves, wet wash cloth, hand bell if the patient had been in a hand bell choir.
1.4	Provide a quiet period before and after sensory stimulation. Move the stimuli around to facilitate visual and auditory tracking.
1.4	Show the patient large pictures of faces (balloon with large face picture, page with large picture of a puppy's face, page with large pictures of family members' faces).
1.6	Choose a lightweight object that the patient likes. Show the object to the patient within his field of vision. Demonstrate holding the object. Place object in the patient's hand and have him grasp it. For example: small stuffed animals, baseball glove, baseball.

52

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
1.6	Use bridging to teach associations (e.g., put a spoon in the patient's hand during a feeding activity). Progress to hand-over-hand cueing and simple verbal cueing for self-feeding. Gradually reduce the assistance using chaining. May use scented items to facilitate participation in self-feeding activity. Start with the patient's favorite strong-flavored foods. These strategies could also be used with a toothbrush.
1.8	Place finger food item in patient's hand, say "Take a bite," and gesture for feeding self.
1.8	Place cup (spill-proof if needed) in patient's hand, say "Take a drink," and gesture for feeding self.
1.8	While patient is lying on his back, bend knees and physically cue patient to lift buttocks with verbal cue to "Raise up" as caregiver puts bed pan in place. This can also be used to assist the patient with lower extremity dressing and pressure relief.
1.8	To facilitate range of motion, tap balloon toward patient and verbally and gesturally cue to tap the balloon.

53

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
1.8	Roll ball toward patient on a table and verbally and gesturally cue to roll the ball back in order to promote participation in ADLs.
2.0	Say "Roll toward me...1,2,3" while giving minimal physical assistance for bed mobility.
2.0	Place patient in position to transfer from wheelchair, move foot rests away, and say "Let's go...1,2,3" while you provide minimal physical assistance.
2.0	Position patient at edge of the bed, and provide an activity such as combing hair, brushing teeth, or washing face to encourage postural control and strength while sitting at edge of bed. Gradually increase the length of time.
2.0	Show or point to one of two food items and ask "Do you want this?" or "Do you want potatoes?"
2.0	Show patient blanket or sweater and ask "Do you want a blanket?" or "Do you want a sweater?"

54

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
2.2	Point to your face and say "This is face." Point to the patient's face and say "What is this? This is _____."
2.2	While patient is donning a shirt, touch patient's arm and say "This is your arm. What is this? This is your _____(arm)."
2.4	Show patient two food items and say "This is bread. This is chicken. Which do you want?" Prompt the patient as needed to say the name of the item.
2.4	Show patient two of her favorite objects and ask "Which do you want?" with prompts to name the item. If patient points, ask him/her to name the object.
2.4	Serve pre-cut food spoon, half-filled cup, and fork if patient can use a fork. Provide verbal cues such as "Let's eat" to initiate self-feeding and "Keep going" to continue self-feeding.

55

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
2.4	Instruct caregiver in optimal prompting method for a gross motor stimulation activity (such as rhythmic motion with bending at waist, movement to dance, or rocking chair), such as "Let's dance!" or "Let's stomp our feet!"
2.6	Encourage patient to follow you to a desired location (toilet, bedroom, dining room) by starting to walk and saying "Come with me" or "Let's go."
2.6	Tell patient "Take off your shirt" while gesturing and providing verbal cues as needed.
2.8	Sit with patient and show objects or pictures (such as an old radio) to prompt reminiscing. Say "What do you do with this?" or "Tell me about this" or "Did you ever use one of these?"
2.8	Determine optimal meal set-up and train caregiver to cue as needed to sequence and sustain self-feeding.

56

THE NEW SENSORY MOTOR ASSESSMENT INTERVENTION STRATEGIES

ACLs	Sample Intervention Strategies for ACLs Obtained with SMA
2.8	Place patient's hand on grab bar or arm of locked wheelchair and say "Hold on" while initiating a transfer sequence. Teach caregiver how to effectively use this gross grasp ("death grip") for safety during transfers and ADLs.
2.8	Place patient's hand on grab bar in front and say "Hold on" while standing. Teach caregiver how to effectively use this sustained grasp ("death grip") for safety during toileting, dressing, and grooming tasks.
2.8	Show patient a common object, ask him to name it and tell what you do with that object (such as "cup" and "drink" or "fork" and "eat").
3.2	Show patient a small assortment of objects such as blocks, and ask patient to sort by size, shape, or color.
3.2	Ask patient to write his/her name. Provide cues as needed to encourage the patient to start and continue writing.

57

THE NEW SENSORY MOTOR ASSESSMENT DOCUMENTATION

Documentation should:

- Utilize the Occupational Therapy Practice Framework.
- Include the rationale and clinical reasoning process behind the activity that is being conducted.

The following table shows examples:

58

THE NEW SENSORY MOTOR ASSESSMENT DOCUMENTATION

ACL	Activity	Clinical Rationale	Documentation Example
1.8	While patient is lying on his back, bend knees and physical cue patient to lift buttocks with verbal cue "Raise up" as caregiver pulls pants over hips.	To promote patient's participation in lower body dressing, active use of lower extremity musculature, weight shifting/pressure relief, etc.	"In order to promote patient's participation in lower body dressing, pelvic bridging activities were used to facilitate active engagement with verbal and physical cues during the process of pulling up pants while lying in bed. Caregiver was instructed in how to

59

THE NEW SENSORY MOTOR ASSESSMENT DOCUMENTATION

ACL	Activity	Clinical Rationale	Documentation Example
1.8			facilitate this bridging during dressing using cues that align with the patient's cognitive level. Caregiver was educated in the benefits of facilitating the patient's active involvement in dressing tasks."

60

THE NEW SENSORY MOTOR ASSESSMENT DOCUMENTATION

ACL	Activity	Clinical Rationale	Documentation Example
2.8	Sit with patient and show objects or pictures (such as an old radio) to prompt reminiscing. Say "What do you do with this" or "Tell me about this" or "Did you ever use one of these?"	To allow patient an opportunity to recall pleasant memories and promote cognitive and social engagement, interaction, and verbal communication. Patient should be able to perform this with any required cueing	"Reminiscing activity completed in order to promote memory, cognition, verbal communication, and social engagement in accordance with the patient's cognitive level. Visual cues were provided to prompt verbal interaction with success in 6 out of 10 presentations.

61

THE NEW SENSORY MOTOR ASSESSMENT DOCUMENTATION

ACL	Activity	Clinical Rationale	Documentation Example
2.8			Caregiver training initiated to facilitate activities to promote verbal interaction through visual stimuli. Caregiver was trained to locate stimuli within the patient's field of conscious awareness and to give the patient adequate time to respond in alignment with cognitive level."

62

- ### COLLABORATIVE REHAB FOLLOW-UP PROTOCOL
- **Day 1:** Therapist determines approximate cognitive level, observes caregiver's communication strategies, and obtains concerns from caregiver.
 - **Day 2:** Therapist continues cognitive, ADL, motor, and/or sensory assessment and determines patient's interests.
 - **Day 3:** Therapist completes cognitive, ADL, motor, and/or sensory testing.
 - **Day 4:** Therapist observes and consults with caregiver regarding environment assessment and implements behavior mapping as needed.
 - **Day 5:** Therapist completes draft plan and gives to caregiver to review and discuss.
 - (continued)

63

- ### COLLABORATIVE REHAB FOLLOW-UP PROTOCOL (CONTINUED)
- **Day 6:** Therapist determines who (CNA, Activities Director, Wellness Coordinator, family member, volunteer, etc.) will actually implement the rehab follow-up, provides training, and obtains feedback.
 - **Day 7:** Therapist and activity collaborator determine additional components needed for the rehab follow-up plan and participate in training as indicated.
 - **Days 8 and 9:** Therapist obtains demonstration from the activity collaborator and determines effectiveness of patient outcome.
 - **Day 10:** Therapist and activity collaborator incorporate final plan into medical record, while the activity collaborator will continue implementation.

64

- ### COLLABORATIVE REHAB FOLLOW-UP PROTOCOL (CONTINUED)
- **The unique aspects of this protocol are:**
 - Involves the patient/caregiver from the beginning with development of the program
 - Determines patients' interests through Interest Checklist and My Way
 - Incorporates a broader definition of who could be the collaborator for follow-up
 - Obtains return demonstration



65

- ### COLLABORATIVE REHAB FOLLOW-UP PROTOCOL: PILOT STUDY
- **Methodology**
 - It has been shown in home health (Gitlin et al, 2009) and at a chronic care hospital (Kvedar & Alonzi, 2014) that development of a standardized protocol improved caregiver follow-through of prescribed activities and reduced behavior problems and psychotropic medications.
 - In this study, the standardized collaborative rehab follow-up protocol for skilled nursing facilities was developed including the SMA, environmental assessment, caregiver interview, patient interest checklist, activity prescription, and caregiver training.

(continued)



66

COLLABORATIVE REHAB FOLLOW-UP PROTOCOL: PILOT STUDY

- Methodology (continued)**
 - OT, PT, and SLP staff in multiple skilled nursing facilities were asked to use the Collaborative Rehab Follow-up Protocol for patients with cognitive deficits who were on caseload and complete three separate surveys to provide feedback:
 - The therapist completed one survey at the end of treatment.
 - The collaborator (family member, staff member, etc.) also completed a survey at the end of treatment.
 - One month after the end of treatment, the collaborator completed another survey to indicate whether the FMP (Functional Maintenance Program) is still in place and to give impressions about the success of using the collaborative protocol.

67

COLLABORATIVE REHAB FOLLOW-UP PROTOCOL: PILOT STUDY (CONTINUED)

- Results**
 - Completed surveys yielded a positive feedback trend. Although the patients' cognitive deficits varied in severity, the therapist and the collaborator found use of the protocol beneficial.
 - Therapists found the protocol helpful in setting up a practical FMP that is likely to be carried out.
 - Feedback from therapists and collaborators on the surveys indicated that the patients with the FMPs were:
 - Interacting more
 - Leaving their rooms more often
 - Sleeping in a chair less often
 - Showing increased awareness and orientation

(continued)

68

COLLABORATIVE REHAB FOLLOW-UP PROTOCOL: PILOT STUDY (CONTINUED)

- Results (continued)**
 - Feedback from therapists and collaborators on the surveys indicated that the patients with the FMPs were (continued):
 - Smiling and talking more
 - Expressing needs and wants more
 - Demonstrating increased accuracy with one-step directions
 - Improving the amount of socialization and conversation
 - Collaborators indicated that the protocol assisted them in:
 - Understanding the importance of brain health
 - Understanding how to implement the rehab follow-up program
 - Providing a return demonstration to show comprehension of their role
 - One month after the end of treatment, Activity Directors indicated that the FMPs were still being used three times per week

69



2.0 Age equiv 9-17 months	The patient will: Need assistance to sit up, will not slide down in chair, but will need armchair support to keep from falling to side.	N/A	With patient sitting, gently nudge patient to the side to check for protective extension reflex (look for righting or extending the arm/hand to keep from falling).
	Stand with support for pivot transfer on count of 3.	N/A	While patient is sitting, gently pull patient forward and say, "Lean forward."
	Feed self finger foods and express food preferences; possibly use spoon.	Chair	Observe patient for up to 30 minutes of sustained sitting with side and back support. (Indicate length of time observed.)
	Say "yes" and "no" and use universal gestures: thumbs up, head nod, wave, clap, point, shrug. ** Do not perform items that are obviously	N/A	** Tell patient to "Sit," "Lie down," or "Stand up," when you count "1, 2, 3." Provide 25% physical assistance to ⁷²

SUMMARY AND CONCLUSIONS

- The SMA with its goal bank and associated collaborative rehab follow-up protocol are helpful tools for implementation of sensory stimulation programs for skilled nursing facility patients with severe cognitive deficits.
- Further revision of these tools will provide a useful, efficient, and effective method of assessing patients with low functional levels due to a variety of types of cognitive impairment.



73

NEXT STEPS

- Obtain more therapist feedback
- Obtain more SMA scores for validity testing
- Further refine and streamline the test items
- Assess inter-rater and intra-rater reliability
- Add more goals by Allen mode
- Create a crosswalk from treatment goals to treatment activities
- Develop a standardized protocol to include assessment of cognitive level, patient's interests/lifestyle, environment, and caregiver
- Continue to pilot the collaborative rehab follow-up protocol to observe impact on behavioral issues and psychotropic drug use, as well as therapist, caregiver, and family satisfaction
- Continue to work with Claudia Allen to obtain feedback for future direction

74

REFERENCES AND BIBLIOGRAPHY

- Blue, T., & Allen, C.K. (1992). The Sensory Stimulation Kit. Colchester, CT: S&S Worldwide.
- CMS. (2015, July 16). Medicare and Medicaid programs; reform of requirements for long-term care facilities; proposed rule. Federal Register, 80 (136). Retrieved from <https://www.federalregister.gov/articles/2015/07/16/2015-17207/medicare-and-medicaid-programs-reform-of-requirements-for-long-term-care-facilities>. Accessed June 2, 2016.
- Centers for Medicare and Medicaid Services (CMS). (2016). State Operations Manual (SOM) Surveyor Guidance Revisions Related to Psychosocial Harm in Nursing Homes. Ref: S&C: 16-15NH. Retrieved from <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-16-15.pdf>. Accessed June 2, 2016.
- Centers for Medicare and Medicaid Services (CMS) Manual Transmittal 179 **TRANSMITTAL 179 DATED: 1-14-2014 : 1-14-2014** Retrieved from <https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/Downloads/R179BP.pdf>; accessed 5/6/17

75

REFERENCES AND BIBLIOGRAPHY (CONTINUED)

- Dementia Care Specialists. *Dementia Capable Care: Foundation Course Workbook*. Milwaukee: Crisis Prevention Institute, Inc.; 2011.
- Earhart, C.A. (2009). A brief history of the Cognitive Disabilities Model and assessment. Retrieved April 7, 2014, from www.allen-cognitive-network.org
- Gitlin, L.N., Winter, L., VauseEarland, T, et al. (2009). The Tailored Activity Program to reduce behavioral symptoms in individuals with dementia: feasibility, acceptability, and replication potential. *Gerontologist*, 49, 428-439.
- Kvedar, T., Alonzi, D. (2014). Translating the tailored activity program in a chronic care hospital for dementia patients. Paper presented at Allen Cognitive Network 10th Cognitive Symposium, November, Redondo Beach, CA.

76

REFERENCES AND BIBLIOGRAPHY (CONTINUED)

- McCraith D, Austin S, Earhart C. The Cognitive Disabilities Model in 2011. In: N. Katz, ed. *Cognition, Occupation, and Participation Across the Life Span: Neuroscience, Neurorehabilitation, and Models of Intervention in Occupational Therapy*. 3rd ed. Bethesda, MD: American Occupational Therapy Association; 2011: 383-406
- McCraith D and Earhart C. (2018) Cognitive Disabilities Model: Creating fit between functional cognitive and cognitive ability demand. In: N. Katz and J.Toglia, ed. *Cognition, Occupation, and Participation Across the Lifespan: Neuroscience, Neurorehabilitation, and Models of Intervention in Occupational Therapy*, 4th ed. (pp 469-495). doi [10.7139/2017.978-1-56900-479-1](https://doi.org/10.7139/2017.978-1-56900-479-1)
- Rancho, Allen and Reisburg Levels. (2010). Retrieved October 30, 2014, from www.flashcardmachine.com/ranchoallen-and-reisburglevels.html
- Reisberg, B., London, E., Ferris, S.H., Borenstein, J., Scheier, L., & deLeon, M.J. (1983). The Brief Cognitive Rating Scale: Language, motoric, and mood concomitants in primary degenerative dementia. *Psychopharmacology Bulletin*, 19, 702-708.

77

Angela Edney, MSA, OTR/L
National Director of Clinical Services
angela.edney@aegistherapies.com

Jackie Maynor, OTR/L
Clinical Specialist
jackie.maynor@aegistherapies.com

Tamera Paulk
Area Vice President
tamera.paulk@aegistherapies.com

