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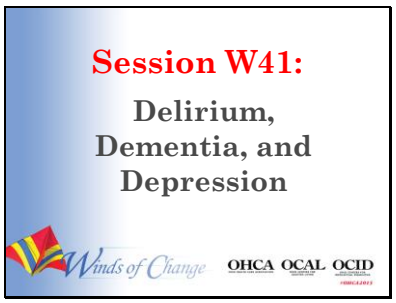

Slide 2

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Slide 4

Why Three D's?

- Important in care of the elderly
  - Can be mistaken for one or the other
- Each condition is three-dimensional
  - Depth that needs to be explored
  - Outcomes dependent on proper identification
- Each has different treatment modalities
- **NOT** part of normal aging

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Slide 5

What's the Difference Between the 3 D's

Delirium

Delirium is characterized by *rapid onset* (over days) and a fluctuating course. Disorientation to time and short-term memory impairment are common. The person may exhibit obvious distress, misperceptions, and visual illusions or hallucinations. The patient with delirium has incoherent and disorganized speech and thought.

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Slide 6

What's the Difference Between the 3 D's

Dementia

Dementia typically has a *gradual onset* (over years) and a slow, steady pattern of decline *without a change in consciousness*. People with dementia, at least until the late stages, are able to attend to the environment. Hallucinations are typically absent in early stages of dementia. The patient with dementia may have vague speech and word finding problems, but the patient with delirium has incoherent and disorganized speech and thought.

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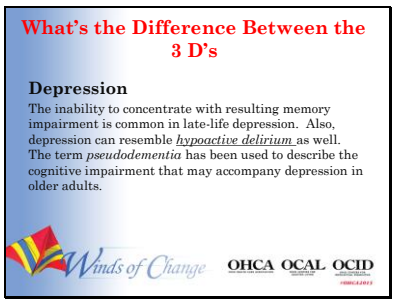

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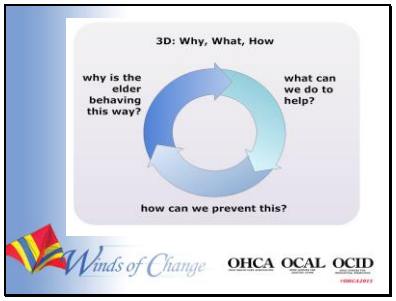

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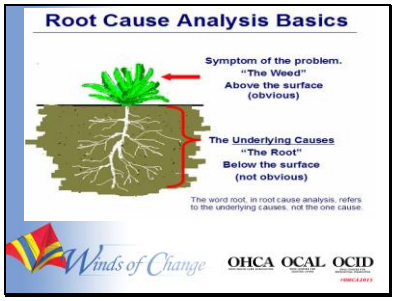

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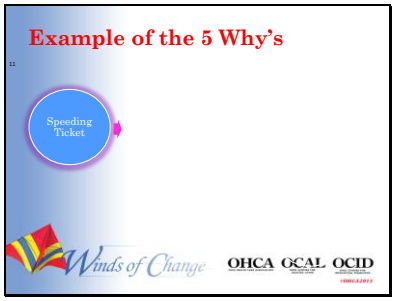

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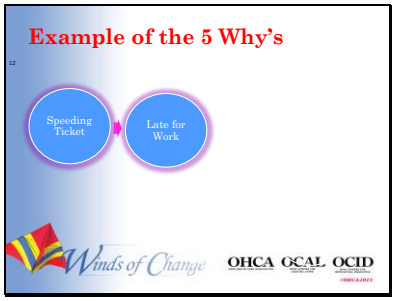

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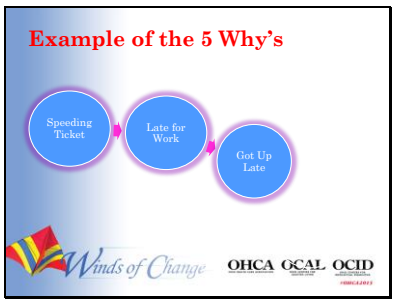

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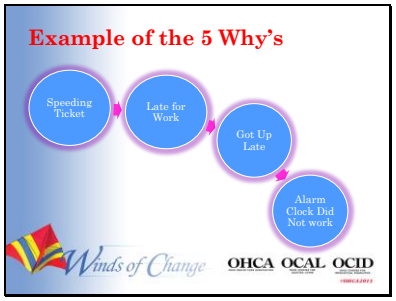

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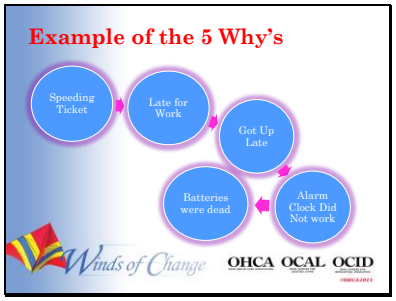

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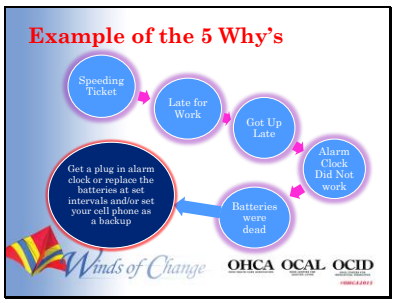

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What is the scope?

- As high as 65% after orthopedic surgery
- 20-25% after cardiac surgery
- Those with dementia 3-5 times more likely to develop delirium
- 16% rate of delirium upon admission to sub acute care
- 46% rate discharged to a home care agency
- 6-60% prevalence in long term care settings

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Delirium

- Interaction of predisposing factors
  - Cognitive impairment
  - Severe illness
  - Sensory impairment

AND

- Precipitating factors
  - Medications
  - Procedures
  - Restraints
  - Iatrogenic events

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Slide 21

Causes of Delirium

- Usually caused by illness, environment, reaction to medication
- Other Factors
  - Heart attack
  - Not enough fluids
  - Hypoxia
  - Alcohol or drugs
  - Lack of Sleep
  - Medication
  - Herbal remedies
  - Diabetes
  - Hyperthermia
  - Hospitalization
  - Age and Illness
  - Poor vision
  - Fecal impaction
  - Malnutrition

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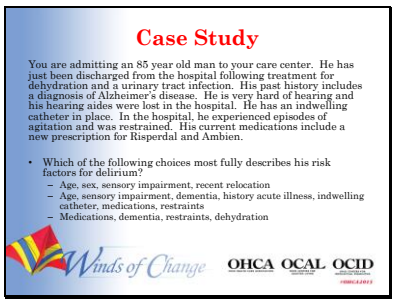

Slide 25

Case Study

You are admitting an **85 year old** man to your care center. He has just been discharged from the hospital following treatment of **dehydration and a urinary tract infection**. His past history includes a diagnosis of Alzheimer's disease. **He is very hard of hearing and his hearing aides were lost in the hospital.** He has an **indwelling catheter** in place. In the hospital, he experienced episodes of agitation and was **restrained.** His current medications include a new prescription for **Risperdal and Ambien**.

- Which of the following choices most fully describes his risk factors for delirium?
  - Age, sex, sensory impairment, recent relocation
  - **Age, sensory impairment, dementia, history acute illness, indwelling catheter, medications, restraints**
  - Medications, dementia, restraints, dehydration

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Types of Delirium

- Hyperactive
- Hypoactive
- Mixed

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Hyperactive Delirium

Commonly present with psychomotor agitation, increased arousal and delusions. The degree of cognitive impairment may be variable and even minimal in some instances.

- Excessive alertness
- Easy distractibility
- Increased psychomotor activity
- Hallucinations, delusions
- Agitation and aggressive actions
- Fast or loud speech
- Wandering, non-purposeful, repetitive movement
- Verbal behaviors (yelling, calling out)
- Removing tubes/clothing
- Attempting to get out of bed

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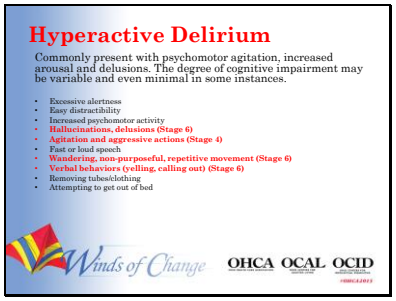

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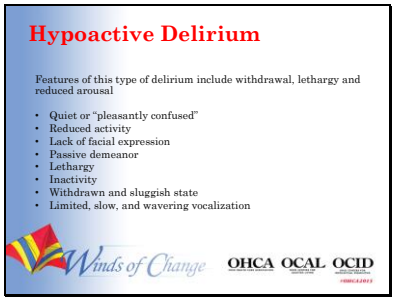

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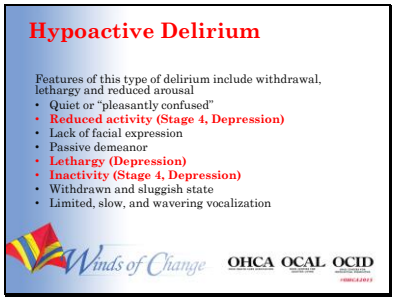

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Mixed Delirium

Unpredictable fluctuations between *hypoactivity* and *hyperactivity*

Hypoactivity

- Quiet or "pleasantly confused"
- **Reduced activity**
- Lack of facial expression
- Passive demeanor
- **Lethargy**
- **Inactivity**
- Withdrawn and sluggish state
- Limited, slow, and wavering vocalization

Hyperactivity

- Excessive alertness
- Easy distractibility
- Increased psychomotor activity
- **Hallucinations, delusions**
- **Agitation and aggressive actions**
- Fast or loud speech
- Wandering, non-purposeful, repetitive movement
- **Verbal behaviors (yelling, calling out)**
- Removing tubes/clothing
- Attempting to get out of bed

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Assessing for Delirium

- New Residents:
  - Assess upon admission for prior status
    - CAM – Confusion Assessment Method (part of MDS3.0)
    - BIMS – Brief Interview for Mental Status (part of MDS3.0)
- Do not assume current mental status is usual state
  - Do not attribute to age alone
  - Do not assume dementia is present
- Existing Residents
  - Know the resident's usual mental status and functional patterns

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Case Study

Mary, 83 years old, has been a resident of the nursing home for 4 years. She has Alzheimer's disease. Her usual pattern is to walk around the facility all day, stopping to talk to everyone. She eats well and enjoys the activities, especially singing. For several days, Mary refused to get out of bed, refused to feed herself, and was very aggressive towards the staff, yelling out constantly. She seemed not to recognize her familiar caregivers and had a frightened look on her face. At other times, she was very quiet and withdrawn, sleeping more, and speaking very little. Staff attributed the change in her pattern to a progression of her Alzheimer's disease. Upon closer assessment, she was found to have a very painful right leg. X-ray revealed a fractured hip. She underwent a surgical repair and returned to the facility and resumed her usual activities – still in the same stage of Alzheimer's.

What type of delirium was Mary experiencing?

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Case Study Rationale

Mary, 83 years old, has been a resident of the nursing home for 4 years. She has Alzheimer's disease. Her usual pattern is to walk around the facility all day, stopping to talk to everyone. She eats well and enjoys the activities, especially singing. For several days, *Mary refused to get out of bed, refused to feed herself, and was very aggressive towards the staff, yelling out constantly (hyperactive).* **She seemed not to recognize her familiar caregivers and had a frightened look on her face (Hyperactive, Stage 6).** *At other times, she was very quiet and withdrawn, sleeping more, and speaking very little (Hypoactive, Stage 6)* Staff attributed the change in her pattern to a progression of her Alzheimer's disease. Upon closer assessment, she was found to have a very painful right leg. X-ray revealed a fractured hip. She underwent a surgical repair and returned to the facility and resumed her usual activities – still in the same stage of Alzheimer's.

Answer = MIXED

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Medical or Physical Triggers

Changes in dose or addition of new medication	The elder may have side effects to medication. Check for new medications or changed doses.
Poor vision or hearing	Check to see that hearing aids and glasses are working properly.
Fever	Check the elder's temperature as the elder may be experiencing the beginning symptoms of an illness.
Pain	The elder may hold her stomach, or moan when you touch her arm, letting you know that she is in pain.
Acute medical problems	Look for fever, coughing, foul-smelling urine, hot red areas on the skin, and shortness of breath.
Constipation or urinary incontinence	Plan a regular toileting schedule to decrease these problems.
Hunger	Listen for stomach "grumble" sounds. Watch for elder licking lips or turning head toward the smell of food.
Fatigue	Provide rest periods to decrease level of fatigue. Set up nightly routines. Keep room quiet and dark at night.

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Outside Triggers

Feeling cold or hot	Check temperature for fever. Feel hands and feet; if cold, add socks and layers of clothing. The elder may be cold when you are not.
Too much going on – noisy and distracting environment.	When this occurs, elders have difficulty calming themselves.
Examples: Other elders crying out, sirens outside, many visitors.	Provide relaxation strategies to minimize anxiety, fear: • Massage, therapeutic touch • Speak in soothing tones • Play soft, soothing music or nature sounds (ocean waves, rainfall, bird sounds) • Take to a quiet place or outdoors
Boredom	Encourage activities. Be aware of the elder's skill level. Avoid activities that are too hard. More frustration is created if the activity is too hard.
Unfamiliar people or places	Consistency in staff caring for elder helps in establishing rapport and trust. Teach visitors to introduce themselves. Remind the elder of where she is when visiting an unfamiliar physician or dentist.
Not enough physical activity	Walking, exercise of any kind.

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Medications and Conditions That Can Cause Delirium

- Anticholinergic - antihistamines, antipsychotics, antispasmodics, antiparkinsonian agents
- Decreased cerebral bloodflow – antihypertensives, antipsychotics
- Depression of respiratory system
- Fluid and electrolyte alterations
- Altered thermoregulation
- Acidosis
- Hypoglycemia
- Hormonal disturbances
- Depression

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Caution

With the close link between medications and delirium, **whenever an elder experiences a change in mental status, think of medication as a probable cause.** Over-the-counter medications must be considered, because they are often the cause of medication interactions.

Questions that must be asked include the following:

1. Is it likely that one or more medications are causing the behavior?
2. Can any medications be eliminated?
3. Can any doses be lowered?

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High Risk Medications for Delirium

- Pain Medications
  - **NSAIDs (Aleve, Ecotrin, Motrin)**
  - Opioids (Codeine, morphine, fentanyl, methadone)
- Anticholinergics (atropine, diphenhydramine)
- Corticosteroids (hydrocortisone, prednisone)
- Dopamine agonists (amatadine, levodopa)
- **Antidepressants - (Zoloft, Paxil)**
- **Sedative-hypnotics (Ambien)**

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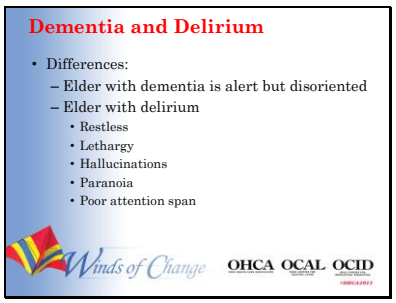

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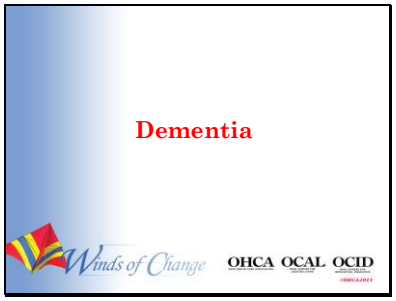

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Dementia Assessment

- BIMS – Brief Interview for Mental Status
  - Part of MDS3.0 for residents that can be understood
  - Excellent reliability
  - 64% reported that BIMS led them to observe new delirium behaviors that differed from those in the medical record

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Stage 3 and Stage 4 Dementia

Stage 3

- Problems with right word or name
- Difficulty remembering material just read
- Increased trouble planning and organizing
- Losing or misplacing valuable objects

Stage 4

- Forgetfulness of recent events
- Difficulty performing challenging mental arithmetic
- Forgetting one's personal history
- Moody or withdrawn

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Stage 3 and Stage 4 Dementia

Stage 3

- Problems with right word or name
- **Difficulty remembering material just read (hyperactive delirium)**
- **Increased trouble planning and organizing (Depression)**
- Losing or misplacing valuable objects

Stage 4

- Forgetfulness of recent events
- **Difficulty performing challenging mental arithmetic (depression, hyper or hypoactive delirium)**
- Forgetting one's personal history
- **Moody or withdrawn (hypoactive delirium, depression)**

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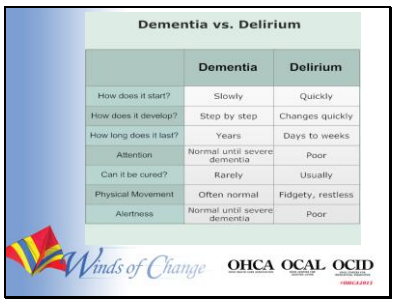

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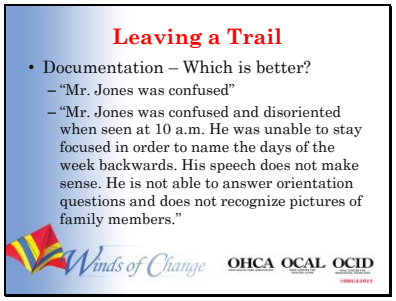

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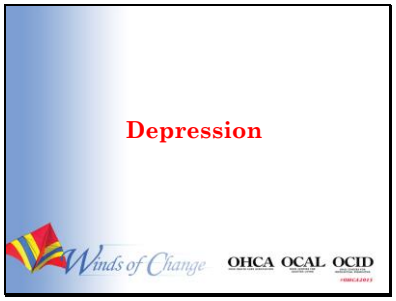

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Depression

- Up to 40% of nursing home residents – underdiagnosed and treated
- Up to 40% of people with Alzheimer's disease experience depression
- Significant depressive symptoms affect up to 20% of elderly adults at large
- Associated with poor outcomes relating to underlying medical problems – increased suicide risk
- 25-50% of post stroke patients meet criteria for major depressive disorder
- Parkinson's, coronary artery disease, cancer – higher incidence of depression

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Assessing for Depression

- Within 2-4 weeks after admission
- Every 6 months thereafter
- Use clinically accepted tool
  - Geriatric Depression Scale
  - Beck Depression Inventory
- MDS3.0 and OASIS
  - PHQ 2 – OASIS
  - PHQ 9 - MDS3.0

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Depression Signs and Symptoms

- Agitation or irritability
- Feeling "down" or "blue"
- Loss of interest or pleasure in activities once enjoyed
- Changes in appetite—eating more or less
- Weight loss or gain
- Trouble sleeping or sleeping too much
- Agitated movements or slow movements
- Lack of energy
- Feeling worthless or guilty
- Trouble concentrating or making decisions
- Thoughts of death or suicide

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Depression Signs and Symptoms

- **Agitation or irritability (Stage 6)**
- Feeling "down" or "blue"
- Loss of interest or pleasure in activities once enjoyed
- **Changes in appetite—eating more or less (Stage 5)**
- Weight loss or gain
- **Trouble sleeping or sleeping too much (Stage 6)**
- Agitated movements or slow movements
- Lack of energy
- Feeling worthless or guilty
- **Trouble concentrating or making decisions (Stage 4)**
- Thoughts of death or suicide

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Major Depression

- One of the symptoms must be either depressed mood or loss of interest.
- Symptoms should be present daily or for most of the day or nearly daily for at least two weeks
- Depressive symptoms must cause clinically significant distress or impairment in functioning
- Symptoms cannot be due to the direct effects of a substance -- drug abuse, medications, or a medical condition, or occur within two months of the loss of a loved one.

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Other Depressions

- Regular or Typical
  - pervasive sadness
  - pattern of loss of appetite
  - difficulty fall or staying asleep.
- A-typical depression include:
  - Overeating
  - Oversleeping
  - Fatigue
  - Extreme sensitivity to rejection
  - Moods that worsen or improve in direct response to events

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Side by Side Comparison

	Depression	Delirium	Dementia
Onset	Weeks to months	Hours to days	Months to years
Mood	Low/apathetic	Fluctuates	Fluctuates
Course	Chronic; responds to treatment	Acute; responds to treatment	Chronic, with deterioration over time
Self-Awareness	Likely to be concerned about memory impairment	May be aware of changes in cognition; fluctuates	Likely to hide or be unaware of cognitive deficits
Activities of Daily Living (ADLs)	May neglect basic self-care	May be intact or impaired	May be intact early, impaired as disease progresses
Instrumental Activities of Daily Living (IADLs)	May be intact or impaired	May be intact or impaired	May be intact early, impaired before ADLs as disease progresses

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References and Links

BIMS
- http://www.freebookezz.com/pdf/17271480316/

CAM
- http://www.freebookezz.com/pdf/7396781777/

PHQ-9/Instruction Manual
- http://www.freebookezz.com/pdf/3232406029/
- http://www.freebookezz.com/pdf/761466814/

Geriatric Depression Scale
- http://www.freebookezz.com/pdf/25868846813/

Beck Depression Inventory
- http://www.freebookezz.com/pdf/19908100511/

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Lightening Round

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