

1  **Alzheimer Disease
Health and Behavioral Issues**

- 1 Brian Chicoine, MD
Medical Director
Advocate Adult Down Syndrome Center
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- 3 Los Angeles, CA
- 4 Age of Change
DSALA and NDSS

2  **Aging and Decline in Skills**

- Is it always Alzheimer Disease?
- What else can it be?
- How do make the diagnosis?
 - A pattern of decline
 - Rule out other causes

3  **Approach to a person with Decline in skills**

- History and physical
- Medication review
- Mental Health/Psychosocial evaluation
- Labs: Thyroid, vitamin B12, Chemistry panel, Celiac
- Xrays: Lateral cervical spine, CT/MRI of brain (?)
- Sleep study(?)

4  **Decline in Function and Alzheimer Disease**

- Neuropathologic changes
- Prevalence of clinical Alzheimer Disease
 - 10% 40 – 60; 20% 50 – 70; 40% 60 – 80
- Do others have pre-clinical dementia or early non-evident clinical dementia?
- Why do some people not get symptomatic Alzheimer disease?
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6  **Challenges**

- Not just a cognitive disease
- A total body disease
 - Physical
 - Psychological
- A family disease

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Clinical course

- The average age on onset of Alzheimer disease in people with DS is about 20 years earlier than in people without DS.
- The average time from onset of symptoms to death was shorter for people with DS by

2.2 years (3.7 years vs 5.9 years).

- Avg age of death 55.9 years
- Seizures are much more common in AD in people with DS (77% vs 2%)
- Hallucinations were described less frequently in AD in people with DS (13% vs 23%)

8 **Additional physical issues**

- Gait change 97%
- Incontinence 87%
- Dysphagia/swallowing dysfunction 58%

9 **Psychological issues**

- Anxiety
 - Including gait changes
- Depression
- Psychoses
- Aggressive behavior and agitation

10 **Treatment**

- Cholinesterase inhibitors
 - Donepezil (Aricept), tacrine (Cognex), rivastigmine (Exelon), galantamine (Razadyne)
- Memantine (Namenda)
- Memantine for dementia in adults older than 40 years with Down's syndrome (MEADOWS): a randomised, double-blind, placebo-controlled trial.
- Hanney M, Prasher V, Williams N, Jones EL, Aarsland D, Corbett A, Lawrence D, Yu LM, Tyrer S, Francis PT, Johnson T, Bullock R, Ballard C; MEADOWS trial researchers. Lancet. 2012 Feb 11;379(9815):528-36.

11 **Symptom treatment**

- Consider pain, discomfort, or environmental issues as cause of behavioral or mood change
- Anxiety
 - Benzodiazepines (lorazepam, alprazolam, clonazepam)
 - Antidepressants (sertraline, citalopram)
- Depression
 - Antidepressants (sertraline, citalopram, duloxetine, mirtazapine)

12 **Other psychological changes**

- Agitated or aggressive behavior
 - May respond to same medications as for Anxiety
 - Anti-psychotics (risperidone, olanzapine)
- Psychoses
 - Anti-psychotics
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13 **Insomnia**

- Melatonin
- Trazodone
- Use side effects of other medications

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- 14 **The environment**
 - Noise
 - Commotion
 - Outings, work, activities
 - The Bingo Pace
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- 15 **Family Struggles**
 - Family outings
 - Intermittent skills
 - Grieving
- 16 **Advance Directives**
 - "Start to address when you don't have to address"
 - Goals of care
 - A fluid document
 - Feeding tubes
- 17 **What can we do?**
 - Improve cognition
 - Limit further insults to cognition
 - Anesthesia
 - Any illness
 - Limit psychological symptoms
 - Environment
 - Medications
 - Screening testing(?)
 - Comfort
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