Everything You Wanted to Know about Dementia but…

STEPHEN MONTAMAT, MD

NOVEMBER 11, 2015

STRATEGIC INITIATIVES COMMITTEE

Everything You Wanted to Know about Dementia but…

what was the question again?

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OUTLINE

- Impact of Dementia on our Community
- What is Dementia?
- Types of Dementia
- Risk Factors for Dementia
- Prevention of Dementia
- Symptoms of Dementia
- Diagnosis of Dementia
- Treatment of Dementia
- Impact on Women
- Resources

Why is dementia important?

- DEMENTIA is a rapidly growing disease nationwide…
- **1 in 10 Americans** will develop some form of dementia during their lifetime – 70% of those diagnoses will be Alzheimer's
- Someone new is diagnosed with Alzheimer's every 70 seconds
- Of all the major diseases, Alzheimer's is the only one whose **mortality rate is still climbing**
- The greatest risk factor for developing dementia is advancing age
  - **10,000 people a day are turning 65** – a trend which will continue until 2030
- People 85+ represent almost half the people with Alzheimer's

2010/2011 Alzheimer's Disease Facts and Figures – National Alzheimer's Association

Why is dementia important?

- DEMENTIA is a rapidly growing disease…
- **…especially in Idaho.**
- People 85+ are the fastest growing segment of the state's population
- Today, Idahoans with Alzheimer's would fill Bronco Stadium…and that number will double in just 14 years
- Idaho is projected to have the **5th highest increase in Alzheimer's patients among all states**
- Idaho's death rate from Alzheimer's is one of the highest in the nation

2010/2011 Alzheimer's Disease Facts and Figures – National Alzheimer's Association

Why is dementia important?

- Treating Alzheimer's is costly for individuals and the state.
- Medicaid/Medicare patients with Alzheimer's are more than **9 times more costly** than non-Alzheimer's Medicaid/Medicare patients, presenting a public health challenge to our state
- Medicare patients with Alzheimer's are more than **3 times more likely to require hospital stays** than non-Alzheimer Medicare patients
- Patients ages 65+ with dementia **make up about ¼ of all hospital patients at any given time**

2010/2011 Alzheimer's Disease Facts and Figures – National Alzheimer's Association

HEALTH

Boise family grapples with effects of dementia

Even though they have each other, 5 siblings feel overwhelmed by their mother's decline

BY STACEY ST. AMAND
SPECIAL TO THE STATESMAN

On a warm, lazy summer evening in 1967, our quiet family dinner was disrupted by a group of kids playing ding dong ditch. My mother, not usually known for such things, hid next to the door and actually snatched one of the perpetrators right off our front porch.

I recently recalled the event in great detail and remembered the boy trembling in our front hall before Mom released him to his friends. My sister vividly remembers that it was a girl and that Mom made her call her mother to confess before letting her fly.

Normally in such situations we'd

Advice
CAROLYN HAX

Just accept the money

Adapted from a recent online discussion.

Dear Carolyn: I would like to know if there is a polite way to decline a monetary gift. Specifically, my in-laws give us checks for our daughter's college fund for her birthday and Christmas (she's 14 months old, so this hasn't been going on long).

A college education is something my husband and I feel we would like to provide for our daughter, as parents, and we also get a somewhat uneasy feeling about being financially indebted to our in-laws. They are nice people, but there have been a couple of minor instances where they've contributed money to something (our wedding, for instance) and then felt they had a say in how it was spent.

I don't necessarily anticipate that happening here, but the possibility makes us nervous.

My husband feels the same way I do but is often reluctant to talk to his parents about this or any other issue. His tactic is usually to ignore

Dementia

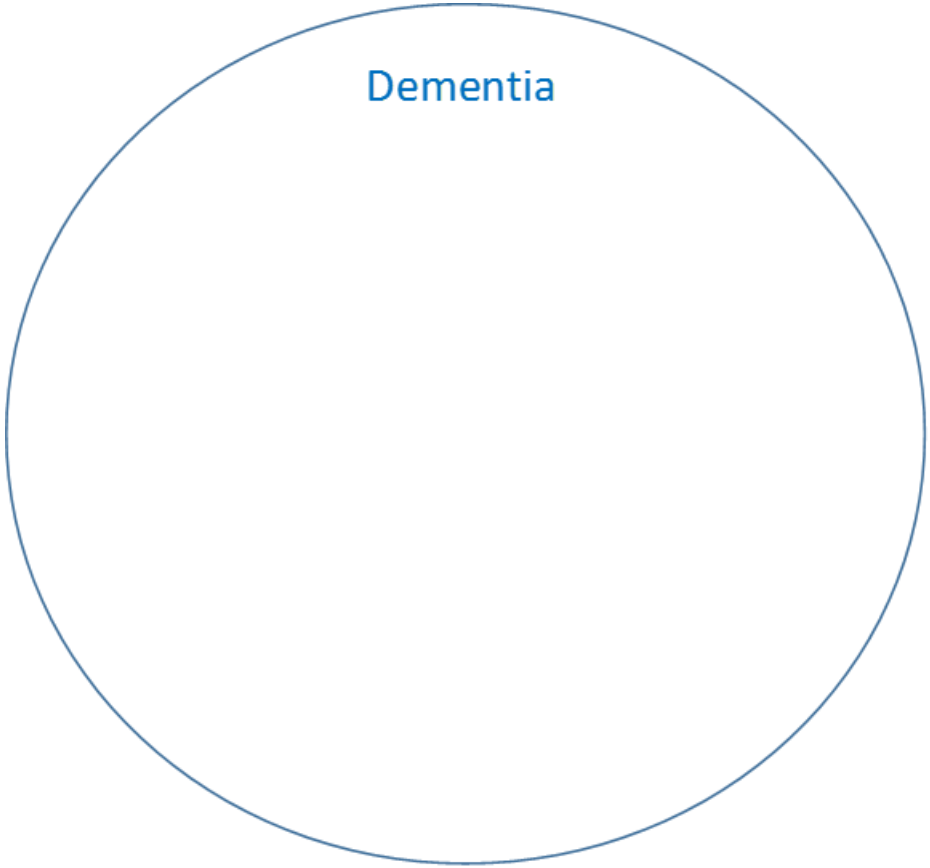
- decline in memory or other thinking skills
- affects a person's ability to perform everyday activities
- caused by damage to nerve cells in the brain
- neurons can no longer function normally and may die
- can lead to changes in one's memory, behavior and ability to think clearly

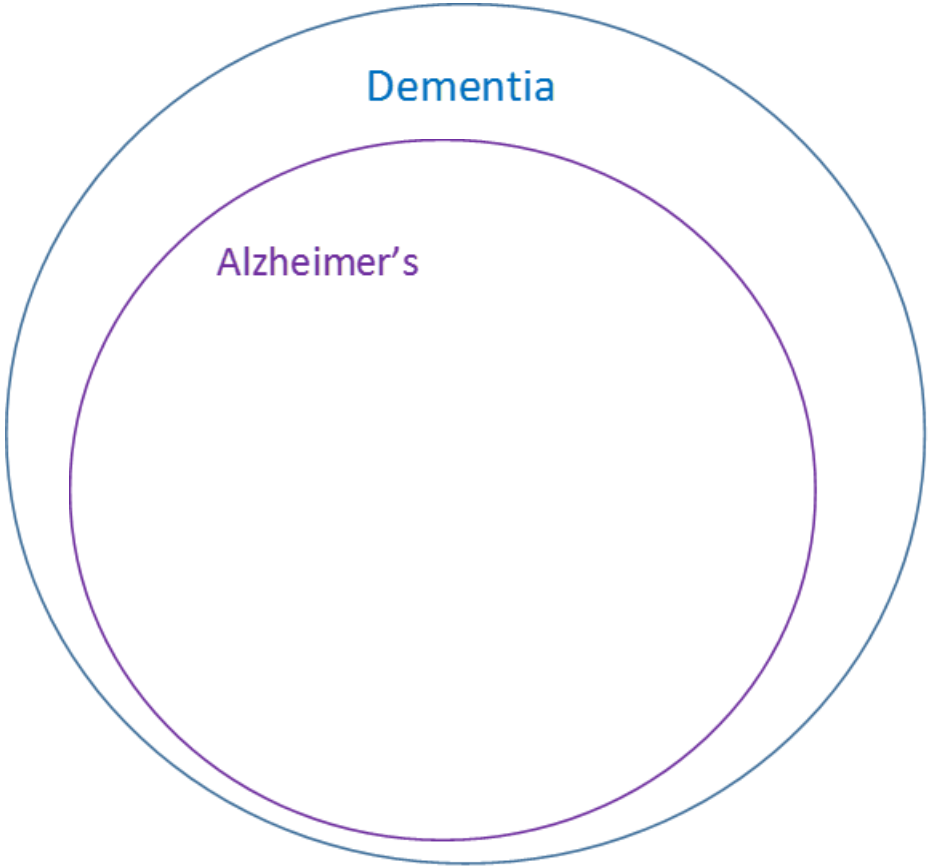
Alzheimer's Association, 2014 Alzheimer's Disease Facts and Figures, *Alzheimer's & Dementia,* Volume 10, Issue 2

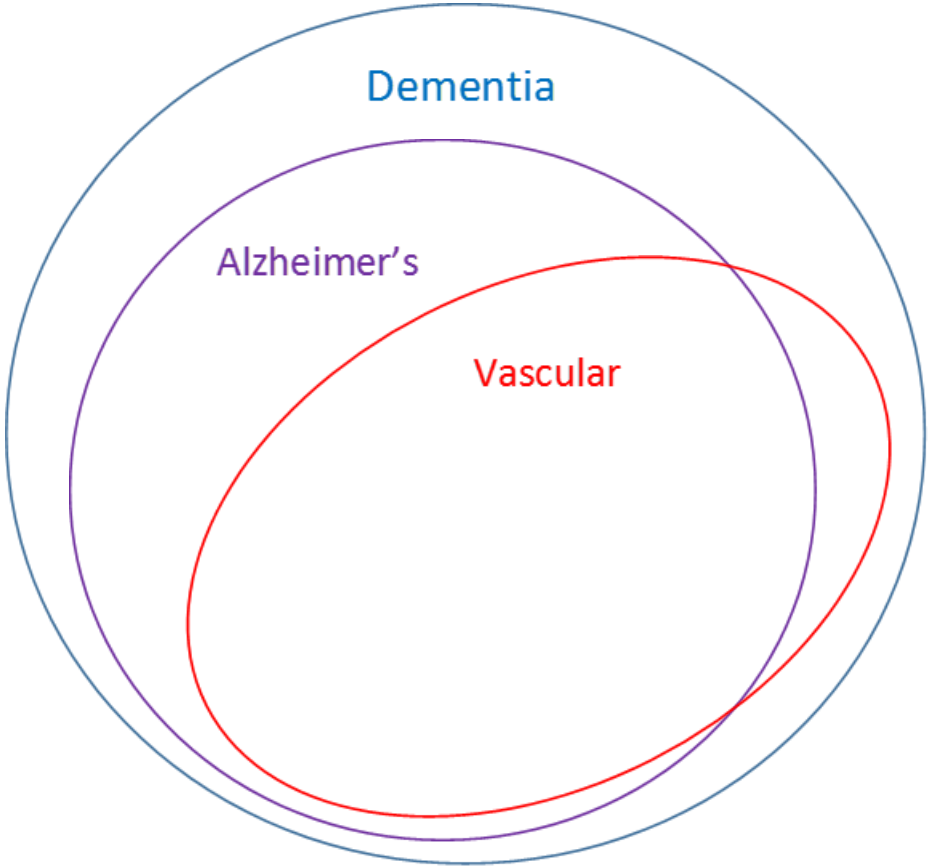
Dementia

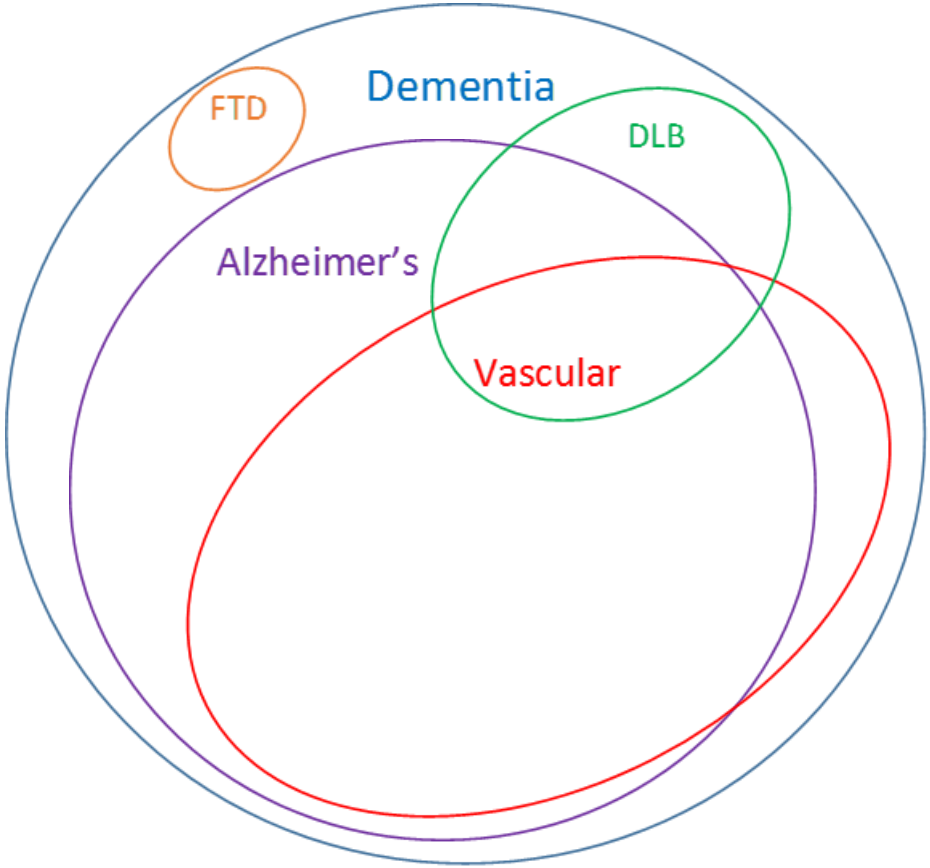
- eventually impairs one's ability to carry out basic bodily functions such as walking and swallowing
- people in the final stages of the disease are bed-bound and require around-the clock care
- most dementias, especially Alzheimer's dementia, are ultimately fatal

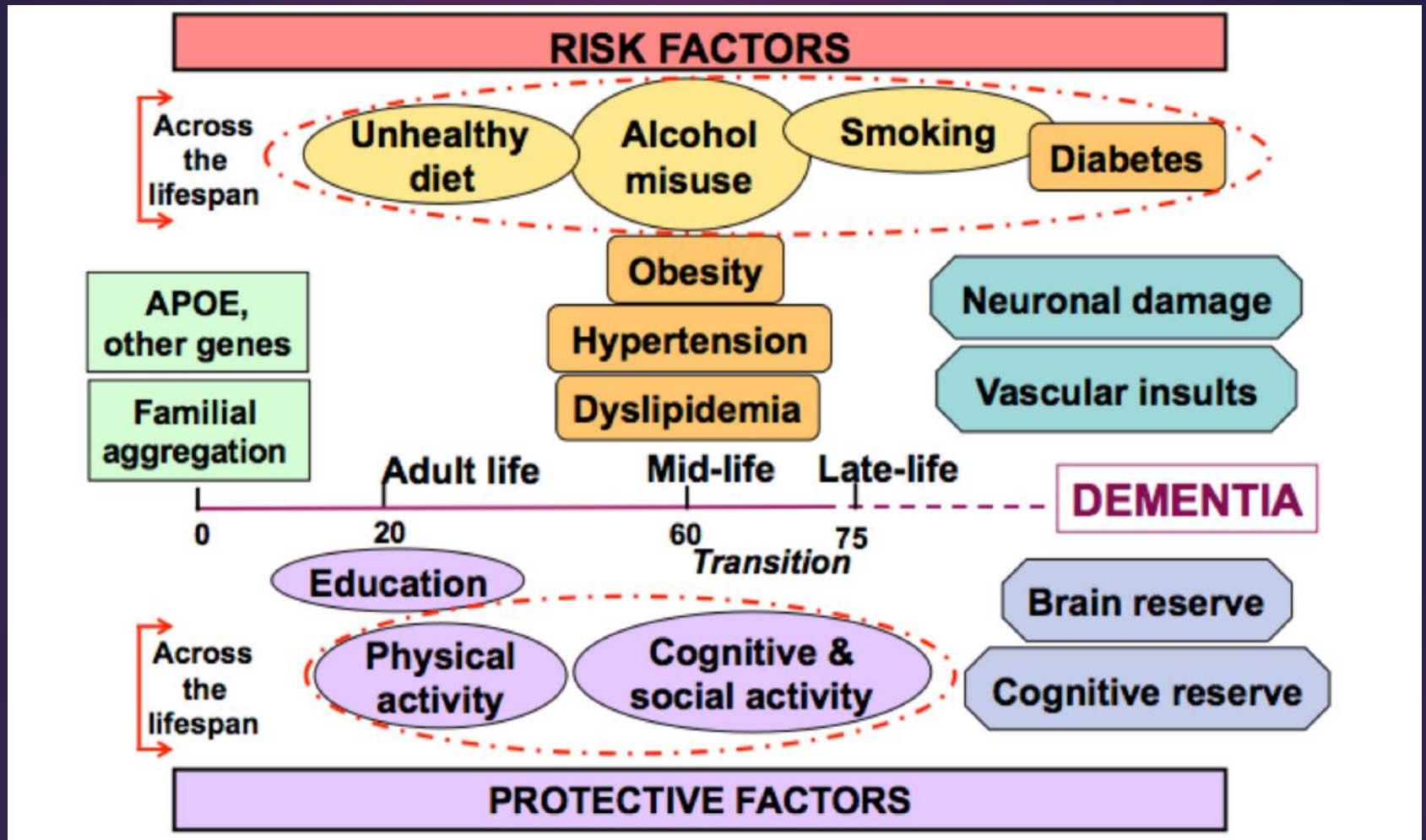
Alzheimer's Association, 2014 Alzheimer's Disease Facts and Figures, *Alzheimer's & Dementia,* Volume 10, Issue 2


Dementia


Dementia
Alzheimer's

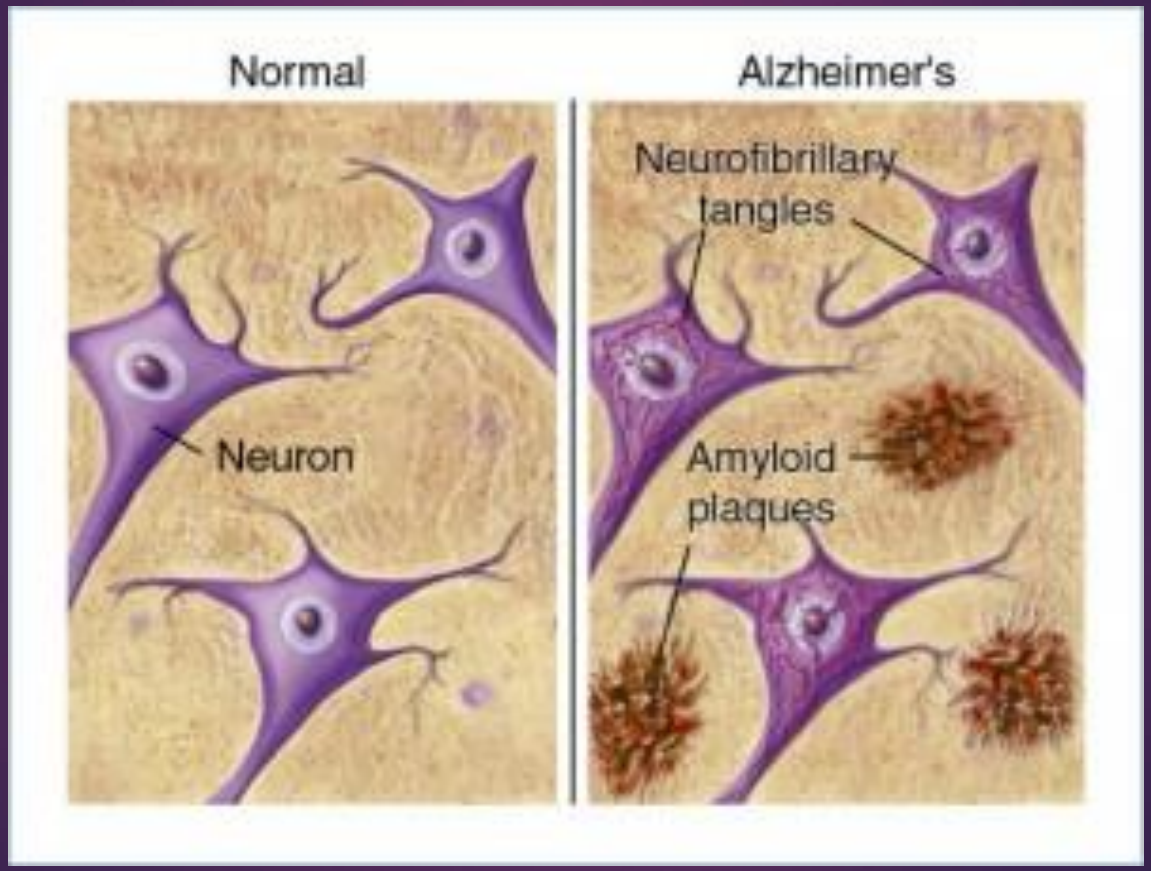

Dementia
Alzheimer's
Vascular


Dementia
FTD
DLB
Alzheimer's
Vascular



Sindi, et al F1000Prime Reports 2015, 7:50
(doi:10.12703/P7-50)

Prevention


Normal
Alzheimer's
Neurofibrillary tangles
Neuron
Amyloid plaques

Prevention

What
is good for the heart
is good for the brain

Some autopsy studies suggest that plaques and tangles may be present in the brain without causing symptoms of cognitive decline unless the brain also shows evidence of vascular disease.

Prevention

- Stay Physically Active
- Adopt a Brain-Healthy (Heart-Healthy) Diet
- Remain Socially Active
- Stay Mentally Active
- Be Heart Smart

Prevention

- Keep your brain active every day:
  - Stay curious and involved — commit to lifelong learning
  - Read, write, work crossword or other puzzles
  - Attend lectures and plays
  - Enroll in courses at your local adult education center, community college or other community group
  - Play games
  - Garden
  - Try memory exercises

Prevention

- Prevention Research
  - **Insights about potentially modifiable risk factors apply to large population groups, not to individuals.**
    - NNT & NNH !!!
  - **Much of our current evidence comes from large epidemiological studies**
    - explore pre-existing behaviors and use statistical methods to relate those behaviors to health outcomes
    - can show an "association" between a factor and an outcome but cannot "prove" cause and effect
    - these studies "suggest," "may show," "might protect" and "are associated with."

Prevention

- Prevention Research
  - **The gold standard for showing cause and effect is a clinical trial**
  - **It is unlikely that some prevention or risk management strategies will ever be tested in randomized trials**
    - i.e impact of exercise on Alzheimer's risk

Diagnosis - Early Warning Signs

- Memory loss that disrupts daily life
- Challenges in planning or solving problems
- Difficulty completing familiar tasks at home, at work or at leisure
- Confusion with time or place
- Trouble understanding visual images and spatial relationships

Alzheimer's Association www.alz.org

Diagnosis - Early Warning Signs

- New problems with words in speaking or writing
- Misplacing things and losing the ability to retrace steps
- Decreased or poor judgment
- Withdrawal from work or social activities
- Changes in mood and personality

Alzheimer's Association www.alz.org

Diagnosis

- **History**
  - Family history
  - Medications

Diagnosis

- **Informant interview**
  - Problems with judgment
  - Reduced interest in hobbies/activities
  - Repeats questions, stories, or statements
  - Trouble learning how to use a tool or appliance
  - Forgetting the correct month or year
  - Difficulty handling financial affairs (bill-paying, taxes)
  - Difficulty remembering appointments
  - Consistent problems with thinking and/or memory

Diagnosis

- Cognitive testing
- Neuropsychologic testing
- Physical examination
- Laboratory testing
- Neuroimaging
- Brain biopsy

MCI – Mild Cognitive Impairment

more than
Benign Senescent
Forgetfulness

- represents a state between normal aging and dementia
- common symptoms include memory problems, problem solving, trouble concentrating or reasoning, or remembering the correct word to use
- risk of progression to dementia to be 10 percent per year (compared to 1 to 3 percent per year for general population above age 65)

Diagnosis - Genetics

- Small percentage of Alzheimer's cases (≤1 percent) develop as a result of mutations to any of three specific genes:
  - amyloid precursor protein (APP)
  - presenilin 1 protein (100% likelihood of AD)
  - presenilin 2 protein (95% likelihood of AD)
- Individuals with mutations in any of these three genes tend to develop Alzheimer's symptoms before age 65, sometimes as early as age 30

Diagnosis - Genetics

- **Apolipoprotein E (APOE) Gene**
  - Everyone inherits one form of the APOE gene from each parent: e2, e3 or e4
- **e3** - the most common with about 60% of the U.S. population inheriting e3 from both parents
- **e2** - carried by an estimated 10-20% of the population
- **e4** - carried by an estimated 20-30%; **approximately 2% of the U.S. population has two copies of e4**
- Risk of AD:
  - e4 greater risk compared with e3
  - e2 lesser risk compared with e3

Diagnosis - Genetics

- **Apolipoprotein E (APOE)-e4 Gene**

- Inherit **one copy e4** ⟶ **3x** higher risk AD
- Inherit **two copy e4** ⟶ **8-12x** higher risk AD
- Inherit one or two copies of e4 form, then **more likely to develop Alzheimer's at a younger age** than those with the e2 or e3 forms of the APOE gene
- Between 40 and 65 percent of people diagnosed with Alzheimer's have one or two copies of the APOE-e4 gene

Treatment

- **Treatment of memory problems**
  - Cholinesterase Inhibitors
    - Donepezil (Aricept®)
    - Rivastigmine (Exelon®)
    - Galantamine (Razadyne®)
  - Memantine (Namenda®)
- **Treatment of behavioral symptoms**
  - Depression
  - Anxiety and aggression
  - Sleep problems

Treatment

- **Non-pharmacologic Treatment**
  - Exercise Activity
  - Cognitive Activity
  - Reminiscence Therapy
  - Music Therapy

Treatment

- **Active Management**
  - appropriate use of available treatment options
  - effective management of coexisting conditions
  - coordination of care among physicians, other health care professionals and lay caregivers
  - participation in activities and/or adult day care programs
  - taking part in support groups and supportive services

Alzheimer's Association, 2015 Alzheimer's Disease Facts and Figures, *Alzheimer's & Dementia,* 11(3)332+

Treatment

- **Caregiver Management**
  - **Make a daily plan and prepare to be flexible** if needed.
  - **Be patient when responding to repetitive questions, behaviors, or statements.** This type of behavior is common, and often related to feeling insecure or nervous. Do not argue.
  - **Use memory aids** such as writing out a list of daily activities, phone numbers, and instructions for usual tasks (ie, the telephone, microwave, etc).
  - **Establish calm nighttime routines** to manage behavioral problems, which are often worst at night. Leave a night light on in the person's bedroom.

from UpToDate accessed 9/5/15

Treatment

- **Caregiver Management**
  - **Avoid major changes** to the home environment.
  - **Employ safety measures in the home**, such as locks on medicine cabinets, keep furniture in the same place to prevent falls, remove electrical appliances from the bathroom, install grab bars in the bathroom, and set the water heater below 120°F.
  - **Help the patient perform personal care as they are willing and able.** It is not necessary to bathe every day, although a healthcare provider should be notified if the person develops sores in the mouth or genitals related to hygiene problems (eg, urinary leakage, ill-fitting dentures).

from UpToDate accessed 9/5/15

Treatment

- **Caregiver Management**
  - **Speak slowly**, present only one idea at a time, and be patient when waiting for responses.
  - **Encourage physical activity and exercise.** A daily walk can help prevent physical decline and improve behavioral problems.
  - **Consider respite care.** Respite care can provide a needed break for family and can strengthen the family's ability to provide care in the future. This is offered in the form of in-home care or adult day care. Be sure to take time for yourself, take care of your own medical problems, and arrange for breaks when you need them.

from UpToDate accessed 9/5/15

Treatment

- **Caregiver Management**
  - **Try not to argue or confront persons with dementia when they express mistaken ideas or facts.** Change the subject or gently remind them of an inaccuracy. Arguing or trying to convince a person of "the truth" can be frustrating to all and can trigger unwanted behavior and feelings.

from UpToDate accessed 9/5/15

Resources

- **Call 2-1-1 Idaho CareLine** - just dial **211** from anywhere in Idaho or 1-800-926-2588, or on-line at: http://www.211.idaho.gov
- **Contact Alzheimer's Idaho** by calling **914-4719** or on-line at http://www.alzid.org/. This is non-profit organization dedicated to providing quality client-centered services for those affected with Alzheimer's and other dementias
- **Contact the National Alzheimer's Association 24/7 helpline** - Call **1-800-272-3900** or on-line at http://www.alz.org/Idaho
- **Read the Taking Action Workbook** – copies available on-line at: http://www.alz.org/i-have-alz/downloads/lwa_pwd_taking_action_workbook.pdf
- **Read At the Crossroads: Family conversations about Alzheimer's disease, Dementias and Driving** - copies available on-line at: http://www.thehartford.com/alzheimers
- **Find Your Local Area Agency on Aging for support** services on-line at: http://www.aging.idaho.gov
- **Sign up for Alzheimer's Association Alzheimer's Weekly E-news** on-line at: http://www.alz.org/apps/email_signup.asp

There will be good days, and there will be bad days;
have gratitude for the good days,
reach out to someone for the bad days

YOU OUGHTA KNOW

New medical center will foster palliative care

STEVEN D. BROWN, M.D.

President of Saint Alphonsus Medical Group and vice president and chief medical officer of Saint Alphonsus Health System.

Medical professionals can tell you that the treatment goals for seniors and those needing symptom relief can be much different from the treatment goals of other populations. Accordingly, many in our medical staff have noticed the Treasure Valley's lack of a coordinated outpatient program in geriatrics and symptom relief for those with chronic illnesses, otherwise known as palliative care medicine. With these observations, we decided to take action for the health of seniors and those who need palliative care in our communities.

The Saint Alphonsus Center for Healthy Aging, scheduled to launch early next summer, will be a consultative, outpatient-focused geriatrics and palliative care program that partners with existing agencies and providers of senior and palliative care in the Treasure Valley. SACHA does not intend to interrupt existing physician-patient relationships but to provide consultative support of those relationships. Additionally, SACHA will use our extensive research and coordination to establish relationships with many existing community programs that support seniors and those in need of palliative care.

To start, SACHA will consist of two geriatricians, two palliative care physicians and four advanced-practice providers such as nurse practitioners and physician assistants. Although based at the Saint Alphonsus campus in Boise, this team will travel to Saint Alphonsus clinics throughout Ada County to bring care closer to the senior and palliative care populations that often have difficulty with transportation. Additionally, Saint Alphonsus' well-developed telemedicine capabilities will bring SACHA to surrounding areas, including the rural areas of eastern Oregon. SACHA will include a home-visit program where advanced practice providers will deliver geriatric and palliative care in select patients' homes in collaboration with those patients' primary care providers.

SACHA will also collaborate with social workers and existing hospice organizations to ensure a smooth transition, should the need arise. SACHA's future also brings involvement in public policy advocacy, a clinic designed for geriatrics and palliative care needs, professional education, and community-based advanced care planning.

As Saint Alphonsus develops its population health capabilities, we believe that the needs of our seniors and those with palliative care needs are unique and deserving of additional support — and we look forward to developing that support for our communities in 2016.

brownsd@sarmc.org

Careers

Careers at Saint Alphonsus

+ Current Openings

+ Nursing Opportunities

+ Physician Career Opportunities

Cardiology - General (non invasive) - Ontario

Cardiology - Invasive - Non-Interventional - Boise

Family Medicine - Baker City

Family Medicine - Boise - Findley Clinic

Family Medicine - Boise - Lake Hazel Clinic

Family Medicine - Boise - Overland

Medical Director - Saint Alphonsus Center for Healthy Aging (SACHA)

Specialty: Saint Alphonsus Center for Healthy Aging (SACHA)

Practice Scope: Ambulist model within Saint Alphonsus Medical Group (SAMG), a vibrant and growing multispecialty group practice.

Affiliated Hospital: Saint Alphonsus Regional Medical Center (SARMC) – Boise

Primary Location(s): The Saint Alphonsus Medical Group - Boise Metro Area

Practice model: Employment or PSA

Status: Full Time

Availability: Immediate (multiple openings)

Requirements: Individual with a doctor of medicine (MD) or a doctor of osteopathy (DO) degree (MD/DO); the SACHA program director will be either an ABMS board certified geriatrics or palliative physician with experience in leadership and a proven track record of clinical program development. Must have an unrestricted full license in Idaho and Oregon to practice medicine in all its phases; valid controlled substance registration with Idaho and Oregon Boards of Pharmacy and DEA.

Work Schedule: Traditional clinic work week, Monday through Friday

Call Coverage: No call anticipated for the program as currently defined

EMR/EHR: Ambulatory EHR: Cerner PowerChart®; Inpatient EMR /Computerized Order Entry (CPOE): Cerner PowerChart®

Practice Opportunity Highlights

Organized under the Saint Alphonsus Medical Group (SAMG), a physician led and accountable 350+ provider multispecialty group practice, the Saint Alphonsus Center for Healthy Aging (SACHA) will be a multidisciplinary resource to the community with an ambulatory focus. The core of SACHA includes two palliative care and two geriatric physicians leading a team of four advanced practice professionals (APP), staff, and other providers to collaborate with a broad constituency of other medical specialties and community resources to improve the care of the senior population and those adult patients requiring symptom relief, i.e., palliation. The SACHA program has a multiyear strategic development plan with a broad range of goals ranging from direct consultative patient

HELP: Delirium is NOT Dementia

Feature	Delirium	Dementia
Onset	Acute	Gradual, usually insidious but depends on cause
Course	Short, diurnal fluctuations in symptoms; worse at night and on awakening	Long, No diurnal effects, progressive but yet relatively stable over time
Progression	Abrupt fluctuations	Slow but even
Duration	Hours to days; up to 6+months	Months to years
Awareness	Reduced	Clear
Alertness	Fluctuates; lethargic or hyper vigilant	Generally normal
Attention	Impaired, fluctuates	Generally normal
Orientation	Fluctuates in severity, generally impaired	May be impaired
Memory	Recent and immediate impaired	Recent and remote impaired
Thinking	Disorganized, distorted, fragmented, slow or accelerated, incoherent	Difficulty with abstraction, though impoverished, make poor judgments, words difficult to find
Perception	Distorted; illusions, delusions & hallucinations; difficulty distinguishing between reality and misperceptions	Misperceptions often absent

HELP: Delirium Incidence

- Hospital:
  - Prevalence (on admission) 14-24%
  - Incidence (in hospital) 6-56%
  - Postoperative: 15-53%
  - Intensive care unit: 70-87%
- Mortality
  - Hospital mortality: 22-76%
  - One-year mortality: 35-40%

Inouye SK. NEJM 2006;354:1157-65

HELP: Delirium Impact

- Comparable to mortality rates seen with acute MI and sepsis
- Increases length of stay, hospital costs and other complications
- Increased likelihood of discharge to a nursing facility
  - 2.6 fold increase adjusted risk
- Frightening experience for patients and their families

HELP: Delirium Prevention

A Multicomponent Intervention to Prevent Delirium in Hospitalized Older Patients

Inouye, S. et al. NEJM 340:670, 1999

CONCLUSIONS: The risk-factor intervention strategy that we studied resulted in significant reductions in the number and duration of episodes of delirium in hospitalized older patients… **primary prevention of delirium is probably the most effective treatment strategy**.

HELP: Program Goals

The specific program goals are:

1. To maintain physical and cognitive functioning throughout hospitalization
2. To maximize independence at discharge
3. To assist with the transition from hospital to home
4. To prevent unplanned readmission

HELP: Delirium Prevention (Utah)

- Enrolled 911 patients over three years
- Delirium incidence rate = 3.5%

  (baseline = 33%)
- Observed 32 cases of delirium

  (expected 300 cases)
- LOS reduced from 5.3 to 4.5 days

  (baseline: 8.8 w/delirium, 3.3 no delirium)
- Translated to $715,000 annual cost savings
  - Net cost savings = $555,000/year
- 25% reduction in readmission rate

HELP: Logistics

- All patients ≥ 70 years old admitted to the floor in the last 48 hours with an expected length of stay > 2 days are screened.
- Elder Life Specialist prepares a patient needs assessment and builds a plan of care
- Volunteers deliver program protocols and interventions
- Nurse specialist and geriatrician provide clinical recommendations

HELP: Results

- What the Patient Experiences
  - Lots of attention!
  - Access to someone who can listen
  - Volunteers can help identify patient needs and communicate with staff
  - Volunteers do not discuss clinical issues with patients
- What the Staff Experiences
  - Reduced interruptions and demands
  - Increased staff satisfaction
  - Potential recognition as a National Center of Excellence for Delirium Prevention