UNIVERSITY OF PÉCS
MEDICAL SCHOOL

Elderly care
DEMENTIA – „Challange of the future”

Szilvia Heim, MD. Family physician
Institute of Basic Health Care

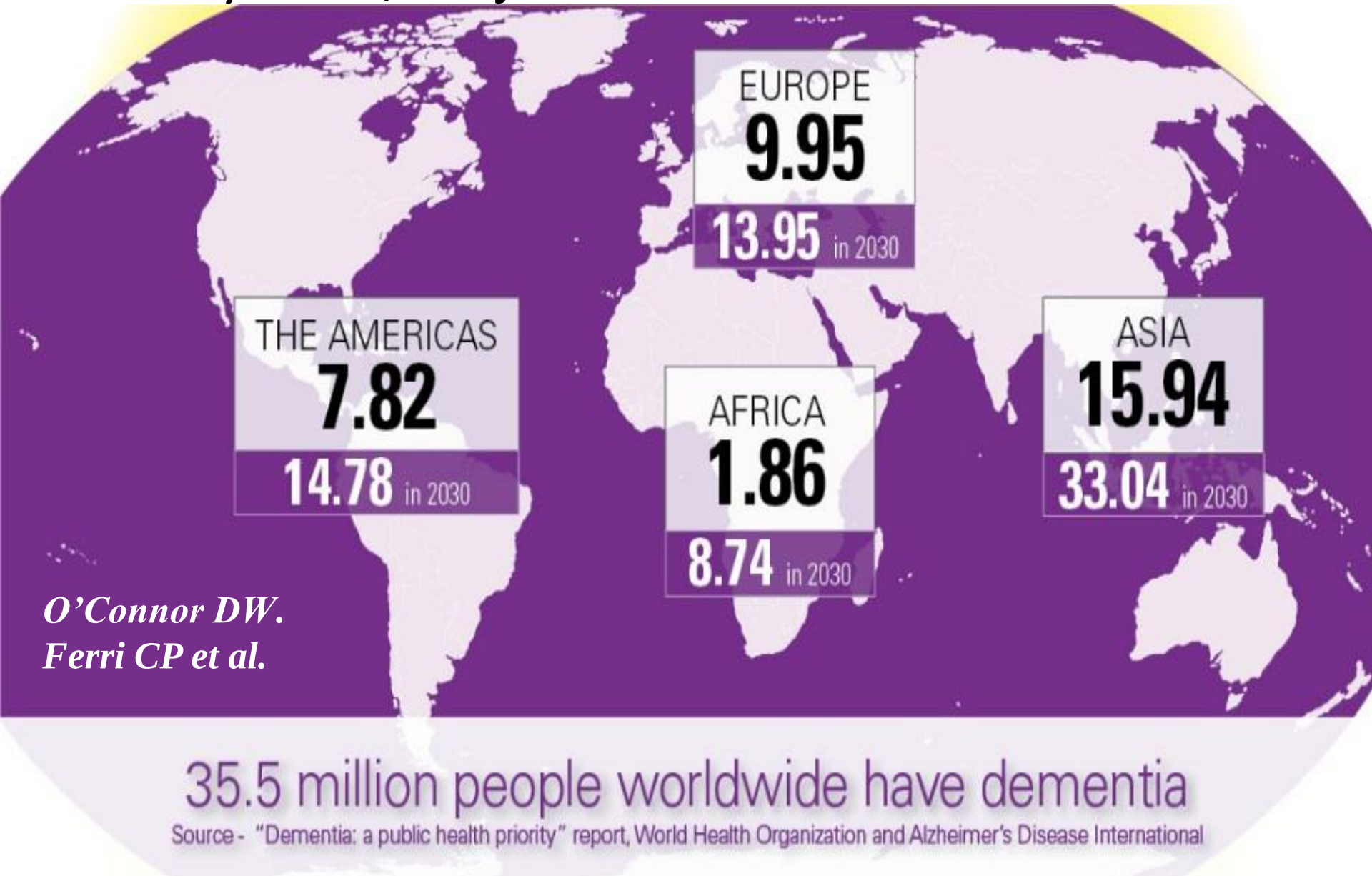
Ever
https://www.youtube.com/watch?v=sElDPbiQXtM&t=29s

Memo
https://www.youtube.com/watch?v=CyGGpsbN55A

Still Alice
https://www.youtube.com/watch?v=ZrXrZ5iiR0o

Epidemiology

By 2030, Project 81 million with dementia



DEMENCIA SYNDROME
(DSM-IV.)

1. Syndrome (Multiplex cognitive deficit)

- **Memory +**
- Judgement
- Attention
- Perception
- Thinking, deceison-making

2. Deterioration in cognitive abilities severe enough to interfere with everyday life

→ Progressive brain failure.

3. Syndrome can be explained by a dectected or presumable organic reason

Symptomes of dementia

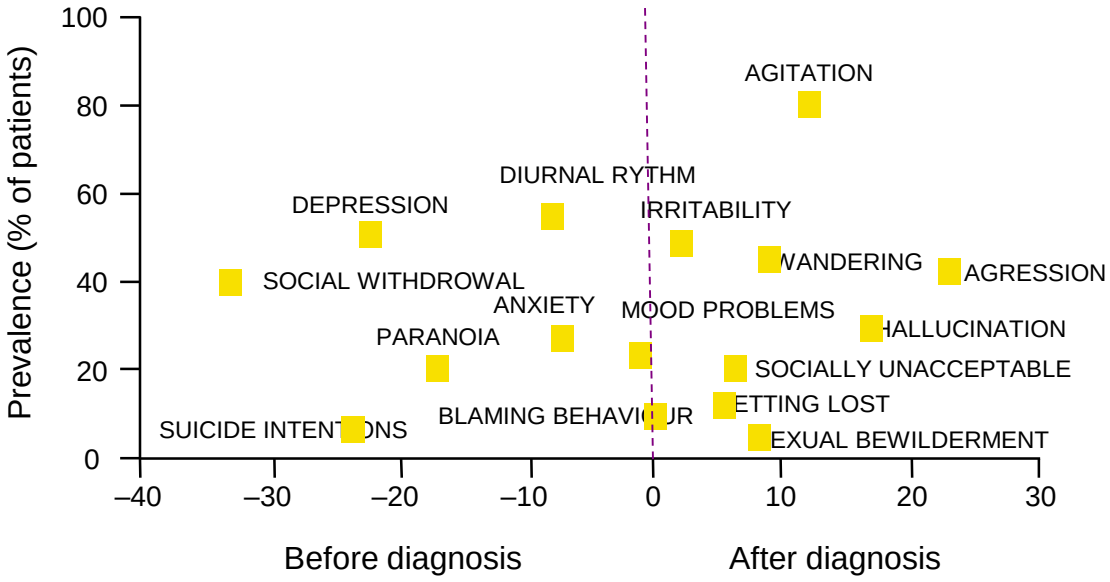
- Cognitive symptomes
  - Memory problems
  - Afasia
  - Apraxia
  - Agnosia
  - Executive operations

Neurological symptomes:

Trouble walking
Incontinence
Extrapyramidal disturbances

- Non-cognitive symptomes
  - Affectiv problems
  - Hallucinations
  - Delusion
  - Motivation problems
  - Agitation
  - Agressivity
  - Personality changes

Psychotic symptomes in dementia



Jost BC, Grossberg GT. *J Am Geriatr Soc.* 1996;44:1078-1081.

Incidence

1. Alzheimer's (60 %)
2. Vascular, e.g., stroke, embolus (17-20 %)
3. Lewy body (10 – 13 %)
4. Frontotemporal (rare, younger people)
5. Parkinson disease
6. Alcohol caused dementia

Langa KM, et al.

Risk factors (AD)

- Advanced age, femal gender
- APOE-4 genotype
- Obesity
- Insulin resistency
- Vascular factors
- Dyslipidaemia
- Hypertonia
- Inflammatory markers
- Down syndrome
- Traumatic brain injury

Preventive approach

PROGNOSIS

Protective	Non protective
Female	Male
Higher education (> 8 years)	Early language problems or behavioral-psychotic symptomes
No posture symptomes	Posture symptomes
No loss of 3 points in MMSE/year	More than 3 points loss in MMSE/year
Marital status: married, relationship	Marital status: single, widow
Residency: home	Residency: nursing home
Apo E 2/2 genotype	Apo E 4/4, 3/4, 2/4 genotype
Mediterranien diet	Malnutrition or obesity
Regular physical activity	Poor physical activity
Good health status	Comorbid conditions

Diagnostic guidelines
- Role of GP

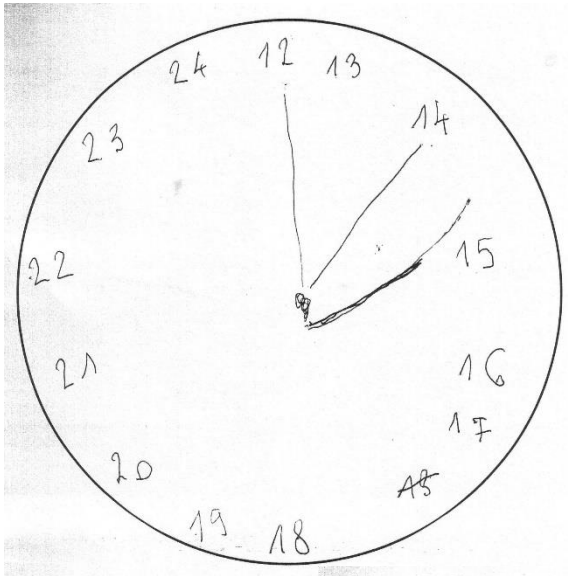
- Common early symptoms
- *Memory problems, particularly for recent events*
- *Increasing confusion*
- *Reduced concentration*
- *Personality or behaviour changes*
- *Apathy and withdrawal*
- *Depression and loss of ability to do everyday tasks*

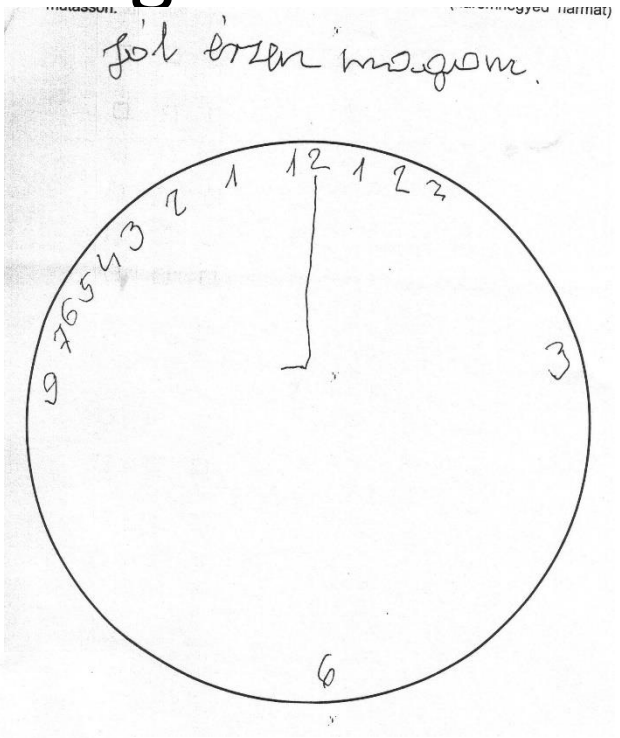
Timely recognition

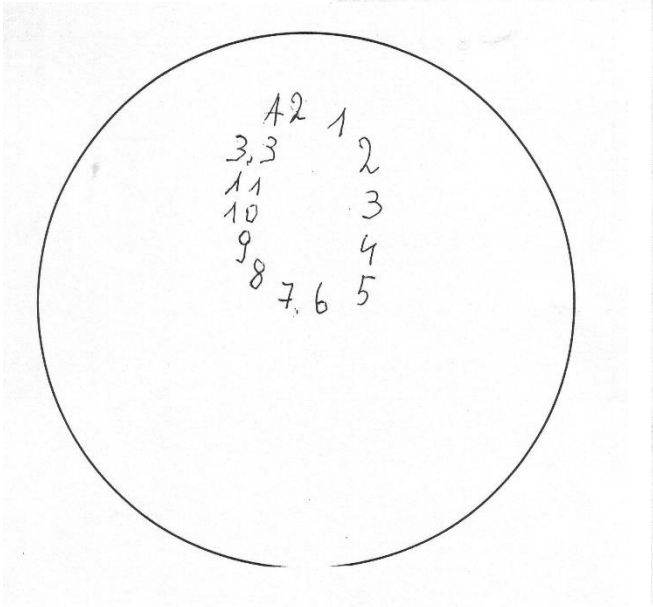
- Preliminary tests
- MMSE
- Clock drawing test
- TYM-test
- GPCog
- Geriatric Depression Scale

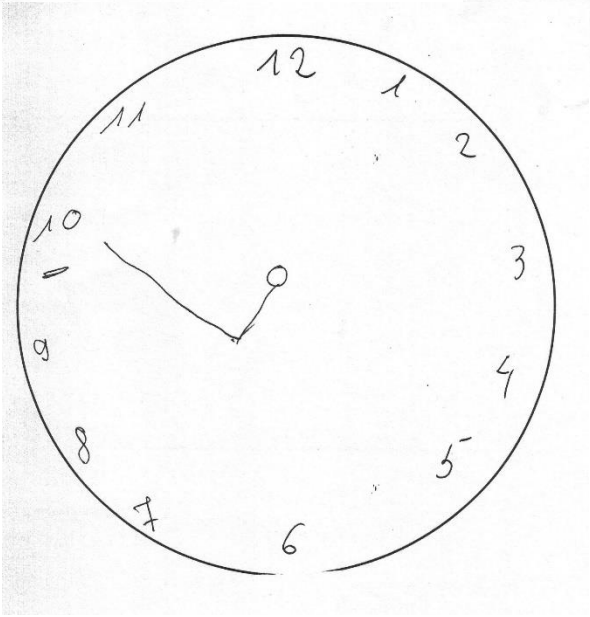
Time
Patience
Circumstances
Experience

Abnormal clock drawing tests









Diagnostic guidelines

- Potentially reversible cognitive impairment

- Hypothyreosis → Exhaustion, constipation, obesity, bad cold tolerance
- B12-vitamin deficit → Asc. paresthesia, tongue pain , weight loss
- Hypo- or hypercalcaemia → Constipation, nausea, dehydration
- Norm. pressure hydrocephalus → Wide-shuffling walk, incont.
- Drug Side effects → Psychoactive agent, anticholinerg agent
- Depression → Lethargy, despair, slow speach
- Subdural hematoma → Trauma 3 months, head ache, convulsion, hemipar.
- Wernicke-Korsakoff sy. → Alcohol disease, nystagmus, wide walking
- Delirium → Hospital or acut dis., change in state of mind
- HIV → Hiperreflexia, incoordination, neuropathy
- Neurosyphilis → Papilla deviation, decreased proprioception

Diagnostic guidelines
- Role of specialists

- Structural brain imaging (CT, MR)
- Specific preauthorisation in order to have the dementia medication reimbursed

- <u>Multidisciplinary dementia team</u>
  - *Geriatric psychiatrist*
  - *Geriatrician*
  - *Psychiatric nurse*
  - *Clinical psychologist*
  - *Medical social worker*
  - *Occupational therapist*
  - *Physiotherapist*
  - *Speech and language therapist*
  - *Neurologist*

Disclosing the diagnosis
SPIKES-model

• Preparing	*Setting*
• Exploring patient perspectives	*Perception*
• Involving the family	*Invitation*
• Sharing the diagnosis	*Knowledge*
• Communicating effectively	
• Responding to patient reactions	*Empathy*
• Focusing on quality of life	*Strategy*
• Planning for the future	

Stages
1. Mild dementia

- Mild cognitive impairment (MCI)
  - It does not yet meet the criteria for dementia
  - Neuropathological processes exist decades earlier
  - 10-15 % /year → AD

- Still function independently
- Memory loss and slight personality change
- Known words, names do not come to mind - describes
- Forget the location of objects or what just read
- Increasing difficulty in planning and organization
- Decision making ability is still adequate

Stages
2. **Moderate dementia**

- The longest period, can last for years
- Worsening of previous symptoms
- Needs more and more help and supervision
- Decline in personal hygiene (urinary incontinence)
- Impairment of personal, spatial and temporal orientation
- Personality and mood change worsen
- Behavior changes
- Increased risk of getting lost
- Sleep disorder (daytime sleep and nighttime restlessness)

Stages
3. **Severe dementia**

- Loose their independence
- Need constant supervision and full care
- Become restricted in their movement
- Develop difficulty in swallowing
- Difficulties in communication
- Increased risk of aspiration pneumonia and aspiration asphyxia
- Increased risk of cachexia, dehydration, ischemic heart attack and pulmonary embolism

Palliative stage

- **Advanced Care Planning**
- **Hospitalization**
- **Medication**
- **Nutrition, hydration**
- **Pain relief**

Dementia case

BREAK OUT ROOMS /
SMALL GROUP SESSION

7-8 minutes

Answer questions in big group

Challenging Decisions

- In last 3 months of life, 40.7% with advanced dementia experienced at least one of
  - Emergency visit
  - Hospitalization
  - Feeding tube
  - Parenteral therapy

Decision making in time!

Mitchell SL, et al.

ADVANCED CARE PLANNING

- With family members
- TIMING!
- Decision making of health care professionals
  (Crisis situation-Hospitalization-Reanimation)
- Right to self-determination (Hungary: 1997. évi CLIV törvény 20-23. §-a és a 117/1998. (VI.16.) sz. Kormányrendelet)
- „Living will” (1998, 2014)
- Foundation of end-of-life planning
  http://eletveg.hu/segedletek/
-

Hospitalization

Resuscitation: Unwitnessed arrest outside hospital, survival is 0.8 %

- Almost 0 discharged alive

Pneumonia: No clear evidence or consensus of antibiotic effectiveness

- No improved functionality
- Hospitalization may ↑ mortality

Herlitz J, et al.

Enteral or Parenteral Feeding

- Facts versus emotion
- No improvement functional status or survival, timing not a factor

Does Feeding Tube Insertion and Its Timing Improve Survival?

Joan M. Teno, MD, MS, Pedro L. Gozalo, PhD,* Susan L. Mitchell, MD, MPH,† Sylvia Kuo, PhD,* Ramona L. Rhodes, MD, MPH,‡ Julie P. W. Bynum, MD, MPH,§ and Vincent Mor, PhD**

JAGS 2012

OBJECTIVES: To examine survival with and without a percutaneous endoscopic gastrostomy (PEG) feeding tube using rigorous methods to account for selection bias and to examine whether the timing of feeding tube insertion affected survival.

DESIGN: Prospective cohort study.

SETTING: All U.S. nursing homes (NHs).

PARTICIPANTS: Thirty-six thousand four hundred

Dementia is a leading cause of death in the United States. Dying from dementia is characterized by eating problems, malnutrition, and recurrent infections. Nearly 90% of persons with advanced dementia develop eating problems.[1] Whether to insert a percutaneous endoscopic gastrostomy (PEG) feeding tube is one of the senti-

Hydration

- Dehydration vs. thirst
- Hydration in cachexia ➔ harm
  - Peripheral edema
  - Pulmonary edema, shortness of breath

Jenkins CA et al.
Viola RA et al.

Continue Medications ?

- Statins
- Anti-hypertensives
- Bisphosphonates
- Anti-coagulants

Dementia Medications

- Continue if clinic benefit
- If Mini-Mental Status Exam:
  - < 10, stop Cholinesterase inhibitors
  - < 3, stop Memantine
- 80 % US hospice medical directors recommend stopping on admission
  - However, 30 % observed accelerated cognitive and functional decline

Shega et al.
Sengstaken et al.

PAIN RELIEF

- Difficulties in recognition and therapy of pain
- Detailed history taking
- Analysis of behavioral signs
- PAINAD scale

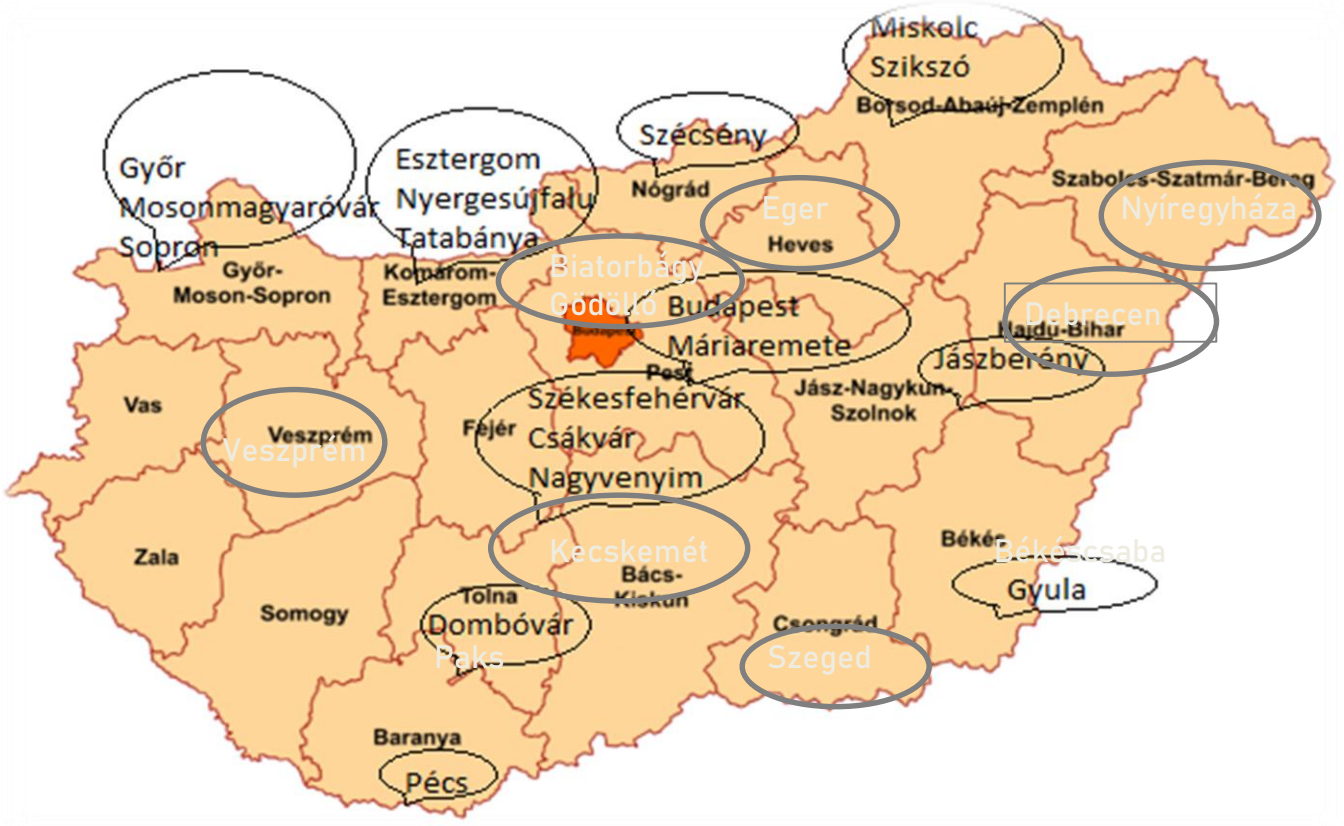
PAINAD scale (Pain assessment IN advanced dementia)

Behavioral signs	0 point	1 point	2 point
Breathing	Normal	Ocassional labored breathing. Short period of hyperventilation	Noisy labored breathing. Long period of hyperventilation, Cheyne-Stokes-respirations
Negativ vocalisation	No	Ocassional moan or groan. Low level speach with a negative or a disapproving quality	Repeated troubled calling out. Loud moaning or groaning. Crying
Facial expression	Smiling or inexpressive	Sad, frightened, frown	Facial grimacing
Body language	Relaxed	Tense. Distressed pacing. Fidgeting	Rigid. Fists clenched,knees pulled up. Pulling or pushing away, striking out
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure
Total points:	0-10, higher result shows	bigger pain	

BURDEN OF CARE

- Burden of care: 24 / 7 / 365
- Months to years
- High costs
- Carer may lost future
- Stress, frustration
- Needs
  - Education
  - Support

Alzheimer Café network in Hungary (2014-2018)



Summary

- Dementia ↑ internationally
- Management requires an interdisciplinary team
- High caregiver burdens, costs, burnout
- Advance care planning essential
- Help everyone cope with loss

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Thank you for your attention!