9th Panhellenic Conference on Alzheimer’s Disease & 1st Mediterranean on Neurodegenerative Diseases
Non-pharmacological strategies: Scientific evidence versus the real world

Luisa Bartorelli, geriatrician & gerontologist
President, Alzheimer Uniti Association Italy
Pharmacological strategies

Anti-amiloidogeni
Estrogen
Anti-inflammatories
Anti-oxidents

Anticholinesterase
Memantine

Alzheimer Planet
TREATMENT OF ALZHEIMER DISEASE
WHICH WAY TO GO?

TWO WAYS TO GO:

- ACETYLCHOLINE
- CHE-INHIBITORS
  MUSCARINICS OR NICOTINICS
- GLUTAMATE
  MEMANTINE

THE THIRD WAY:

- ESTROGENS
- ANTI-OXIDANTS
- ANTI-INFLAMMATORIES
- LIPID-LOWERING

BETA-AMYLOID—TAU
Beta- and gamma secretase inhibitors
IMMUNIZATION
TAU GSK3 INHIBITORS
WHAT CAN WE REALISTICALLY ASK OF THE CURRENT DRUG THERAPY?

- No side effects
- Slowing the progress of the disease
- Better functional state
- Improvement in the quality of life
- Delay in institutionalization
- Moderate cost
ALZHEIMER’S DISEASE

A needle from the haystack

Richard Morris and Lennart Mucke

Abnormal protein clumps of many varieties build up in the brains of individuals with Alzheimer’s disease. But which types actually cause memory deficits? The behaviour of model mice might help to find out.
The world changes.
Expectations evolve.
Needs grow.

The treatments include:
a human dimension
a social dimension.

There are more complex
legal obligations.

There are ethical and
philosophical questions in
the oldest old.
Care Systems

Clinical and scientific advances.
Economy.
Innovative technology.
Organizing assistance.
Increase of awareness of rights and of duties.
Reduction of tolerance levels.

*It is important to become aware, avoid nostalgia and behaviour from the past.*
A zone of complexity
The big question …..

Rational responses (EBM) or continuous adjustments to the variability of the person and to continuous changes of the real world?
“How much is an ADAS-cog point worth in central London?”

Lon S. Schneider  Int. J. Geriatr. Psychiatry 2006
The Recipients

*frail people*

affected by much loss
but often still able to function and
rich in emotions
Beyond the drugs

Global reactivation

THE PERSON
THE CAREGIVER
THE ENVIRONMENT
TECNOLOGY

Cognitive deficits
Behavioural disturbances
Functional deficits
evidence shows that a large proportion of these so-called “behavior problems” stem from a degree to which their environment fulfills these needs.
REACTIVATION
GENERAL OBJECTIVES

- To slow the course of the disease.
- To conserve the patient’s existing capacities.
- To preserve the quality of life for the patient and the family.
The complexity of the disease

Tailored medicine

The person, his character
his own story, his identity...
...good days, bad days.

From the academic view to a therapeutic alliance.
1. How to better support people with dementia to maintain their sense of uniqueness and personal identity (Respecting identity: 'It's not one size fits all')
2. Achieving the right balance between memory-based activities and enjoying the here and now (Embracing now: 'It's a moment-living life')
3. Ensuring people with dementia are able to experience meaningful human connections (Sustaining relationships: 'You don't always need words')
4. Ensuring people with dementia are able to experience a full range of emotions (Valuing contrast: 'Good days and bad days')
5. Taking risks - what are we protecting people with dementia from? (Supporting agency: 'What's there to worry about?')
6. Promoting good overall health for those who are living with dementia including physical and emotional wellbeing (Maintaining health: 'My priority in life').
Space for freedom
PLACES OF CARE

- VOLUNTARY ASSOCIATIONS
- FAMILY
- GP
- SOCIAL SERVICES
- HOME CARE
- THE PERSON
- CDCD
- DAY CENTRE
- RESPITE BEDS
- NURSING HOME
- DAY HOSPITAL
Impaired memory
Impaired learning
Impaired reasoning
High level of stress

Human factors solutions
Using tech. for people with dementia
<table>
<thead>
<tr>
<th>Room</th>
<th>Name</th>
<th>Room</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Elsa Hansen</td>
<td>5</td>
<td>Hildur Halvorsen</td>
</tr>
<tr>
<td>2</td>
<td>Berit Svanhaug</td>
<td>6</td>
<td>Sture Bortibakken</td>
</tr>
<tr>
<td>3</td>
<td>Gudrun Augenie Bø</td>
<td>7</td>
<td>Gro Grynie</td>
</tr>
<tr>
<td>4</td>
<td>Niels Holm</td>
<td>8</td>
<td>Gerd Hoff</td>
</tr>
</tbody>
</table>
ENVIRONEMENT
NOT A “SETTING” BUT A “LIVING SPACE”

Integrated system:

architectural aspects (organization of the physical space)

components of the organization (activities)

social context (formal and informal caregivers)
Nursing Home

FEATURES
ARCHITECTURALLY ADAPTED
NURSING HOME

hortus conclusus an exclusio?
OBJECTIVE

Adapting environmental conditions to guarantee security, stability and trust, taking into consideration the emerging symptoms and avoiding stressful stimulation. ...well-being............
ENVIROMENT: INCREASING DIFFICULTIES

- Spatial disorientation
- Visual-spatial problems
- Behavioural changes
- Motorial uncertainty
- Risks of falling
Environmental Facilities

- Signs to explain
- Special furniture (with rounded edges)
- Utensils and objects in an appropriate form
- Soft and colorful objects (for their ease)
- Clothing
ALZHEIMER GARDEN (OR TERRACE)

SENSORIAL APPROACH
Sensorial Garden
Another space: Alzheimer café
Places for care

What about museum?
Increase in self-esteem and reinforcement of identity

Cognitive and sensorial stimulation

Reactivation
Motivation, socialization and interest in the outside world

Caregiver satisfaction
Alzheimer Uniti Italy leads literary Readings for people with dementia.
Rational basis of non pharmacology therapy for AD

Adaptation of the environment reduces the level of disability.

Mechanism of plasticity, organization and functional adaptation of SNC allow partial rehabilitation.

Exercise is able to delay functional impairment.

"use for not lose"
Motorial Reactivation

Prevention of falls

Awareness of oneself in a space
Emotional experiences from the activity

Perception of one’s body and burden
Equilibrium

MIND

BODY
DANCE-MOVEMENT THERAPY
Cognitive Therapy

Reality Orientation Therapy
(formal and informal)
Memory Training
(Spaced-retrieval technique; compensation, categorization, facilitation)
“Efficacy of a home-based reality orientation therapy programme combined with cholinesterase inhibitors for patient with Alzheimer’s disease: a randomised controlled trial.”

Psychosocial treatments of behavior symptoms in dementia: a systematic review of reports meeting quality standards.
O’Connor DW, Ames D, Gardner B, King M, Department of Psychological Medicine, Monash University, Melbourne, Australia, Int Psychogeriatr 2009 Apr;21(2):225-40.

Cognitive intervention programs for individuals with mild cognitive impairment: systematic review.
School of Psychology, Laval University and Institut universitaire en santé mentale de Québec, Quebec City, Canada. Jean L, Bergeron ME, Thivierge S, Simard M. Am J Geriatr Psychiatry. 2010 Apr;18(4):281-96

Should we use individual cognitive stimulation therapy to improve cognitive function in people with dementia?
Wrell M, Woods B, Spector A. 2011
UCL Mental Health Sciences Unit, University College London, London, UK.
People with dementia must have interventions that are cognitively stimulating, independent of the course of their pharmacological treatment.

‘NICE-SCIE Guide in the management of dementia.”
REALITY ORIENTATION THERAPY

Best results with this program:

*Reminiscence and re-motivation*  
(Koh et al. 1994)

• *Occupational therapy and motorial rehabilitation*  
( Olazaran 2004).
“Validation theory and the myth of the therapeutic lie’
Occupational therapy and workshops expression

- exercise for fine motor skills
- maintenance of capabilities
- creativity
- self-esteem
- gratification
Community occupational therapy for older people with dementia and their caregivers

The COTiD-program (English)
Or
EDOMAH programma (Dutch)
Or
The COTiD- It program (Italian)

Dr. Maud Graff (PhD, OT)
Radboud University Nijmegen Medical Center, The Netherlands
"Un violino nelle mani del malato di Alzheimer: una sfida ed una possibilità" in Atti del Seminario "Il contributo delle Uva nell'assistenza dei pazienti con demenza", Istituto Superiore di Sanità, Roma 2010

The Effect of music therapy on reducing agitation in patients with Alzheimer disease. Zare et Al. Inter J Geriatric Psychiatric. Shiraz University Iran 2010

Application of music therapy on managing agitated behaviour in older people with dementia. Fung HC et Al Hu Li Za Zhi 2009 Hong Kong University

Effect of music therapy on anxiety and depression for people with Alzheimer disease. Guetin S. et Al Geriatric and cognitive disorders. 2009 Service de Neurologie Montpellier
Music Therapy

Listen to me!
I am here.
Art therapy may be beneficial for reducing stress--related behaviours in people with dementia--case report.

Mimica N, Kalinic D, University Department, Vrapče Psychiatric Hospital, Bolnička cesta 32, 10090 Zagreb, Croatia, Psychiatric Danub 2011 Mar;23(1):125-8.
Drama Therapy

Creativity

Spontaneous expression

Construction of stories

Role identification

Use of space

AZIONE SCENICA E MEMORIA: DRAMATHERAPY E ROT IN CENTRO DIURNO ALZHEIMER
Ragni Silvia, Pariante Assunta, Attaianese Fulvia, Boccardo Mauro, Giubilei Annalisa, Bartorelli Luisa
Centro Alzheimer Fondazione Roma - Atti del Convegno AIP 2013
Animal-assisted therapy for dementia: a review of the literature.
Filan SL, Llewellyn - Jones RH, Department of Psychological Medicine, University of Sydney, NSW, Australia,
Int Psychogriatr. 2006 Dec;18(4):597-611
Olfatto, memoria, emozione: un’occasione per la riattivazione.”

Sense of smell, touch, memory and emotions: An opportunity for cognitive stimulation
Ragni S., Tancorre L., Attaianese F., Boccardo M., Giubilei A., Levi S., Bartorelli L.
Atti Congresso Nazionale AIP 2014
Horticulture therapy
Environmental determinants of quality of life in nursing home residents with severe dementia.
Garre Olmo J Am Ger Soc 2012 Jul;60(7)
Nonpharmacological Therapies in Alzheimer’s Disease: A Systematic Review of Efficacy

Javier Olazarán\textsuperscript{a} Barry Reisberg\textsuperscript{1} Linda Clare\textsuperscript{e} Isabel Cruz\textsuperscript{a} Jordi Peña-Casanova\textsuperscript{a, d} Teodoro del Ser\textsuperscript{a, b} Bob Woods\textsuperscript{e} Cornelia Beck\textsuperscript{j} Stefanie Auer\textsuperscript{m} Claudia Lai\textsuperscript{n} Aimee Spector\textsuperscript{f} Sam Fazio\textsuperscript{k} John Bond\textsuperscript{g} Miia Kivipelto\textsuperscript{o} Henry Brodaty\textsuperscript{p} José Manuel Rojo\textsuperscript{c} Helen Collins\textsuperscript{h} Linda Teri\textsuperscript{l} Mary Mittelman\textsuperscript{l} Martin Orrell\textsuperscript{l} Howard H. Feldman\textsuperscript{q, r} Ruben Muñiz\textsuperscript{a}

\textsuperscript{a}Maria Wolff Foundation, \textsuperscript{b}Noscira and \textsuperscript{c}Superior Council of Scientific Research, Madrid, and \textsuperscript{d}Hospital del Mar and Municipal Institute of Medical Research, Barcelona, Spain; \textsuperscript{e}Bangor University, Bangor, \textsuperscript{f}University College London, London, \textsuperscript{g}Newcastle University, Newcastle, and \textsuperscript{h}Cochrane Dementia and Cognitive Improvement Group, Oxford, UK; \textsuperscript{i}New York University Medical Center, New York, N.Y.; \textsuperscript{j}University of Arkansas for Medical Sciences, Little Rock, Ark.; \textsuperscript{k}Alzheimer’s Association, Chicago, Ill., and \textsuperscript{l}University of Washington School of Nursing, Seattle, Wash., USA; \textsuperscript{m}MAS Alzheimerhelp, Bad Ischl, Austria; \textsuperscript{n}Hong Kong Polytechnic University, Hong Kong, SAR, China; \textsuperscript{o}Karolinska Institutet, Stockholm, Sweden; \textsuperscript{p}University of New South Wales, Sydney, N.S.W., Australia; \textsuperscript{q}Division of Neurology, University of British Columbia, Vancouver, B.C., Canada, and \textsuperscript{r}Neuroscience, Bristol Myers Squibb, Wallingford, Conn., USA
Non-drug interventions for Alzheimer’s disease. Last Update July 2013
Institute for Quality and Efficiency in Health Care (IQWiG) Germany

Non-drug interventions for Alzheimer’s disease include things like memory training, mental and social stimulation, and physical exercise programs. Some of these strategies could possibly improve mental abilities and increase people’s independence.

As Alzheimer’s disease progresses, it becomes more and more difficult for people to do everyday activities on their own. They become forgetful and increasingly have problems expressing themselves in words. Their orientation in space and time gets worse and their personality changes. This makes good-quality care and support all the more important: people who have dementia need loving and stable relationships and a tolerant environment.

There is currently no cure for Alzheimer’s disease. As well as medications, there are non-drug interventions that aim to delay the loss of mental abilities, to help people stay independent in everyday life for as long as possible, and to increase their wellbeing and quality of life. Non-drug strategies include things like memory or orientation training. Other interventions include art therapy, aromatherapy, music therapy, animal-assisted therapy and caregiver education programs.
Overview of non-pharmacological intervention for dementia and principles of brain-activating rehabilitation.
Yamaguchi H, Maki Y, Yamagami T, Gunma University School of Health Sciences, Geriatrics Research Institute and Hospital, Maebashi, Japan, Psycogeriatrics 2010 Dec 10(4):206-13
Multi-professional team

Geriatrician
Nurse
Psychologist
Social worker
Physiotherapist
Occupational therapist
Health care worker.
TRAINING
**AREAS:** cognitive, emotional, psychological, social

Active involvement of the person,
Positive environment.
ensemble c’est possible

- Combattre la stigmatisation
- Mettre en réseau toutes les ressources disponibles
- Chercher des solutions créatives aux problèmes
- Partager, partager…!
Care always

*Curare ancora!*
THANK YOU!

R. Magritte Le mistère du quotidien
MERCI !

ALLIANCE ALZHEIMER MEDITERRANÉENNE
DE LISBOA 2014 A THESSALONIQUE 2015