



European Innovation Partnership on Active and Healthy Ageing

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COURAGE IN EUROPE SATELLITE SYMPOSIUM

TUESDAY, 27 NOVEMBER 2012

**BURDEN OF NEUROLOGICAL DISORDERS,
AGEING AND DISABILITY**



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AIFA

Ageing Headlines!

- Life expectancy in most European countries is increasing now by five hours a day. It is clear that within the next fifty years the population of Europe will contain a much greater share of older people, but what is less clear is whether people will age in good health or in poor health
- "Population ageing will fundamentally change the lives of Europeans"
- From an economic standpoint, preventive strategies are considered the most cost-effective solution to the problem of disability in the elderly

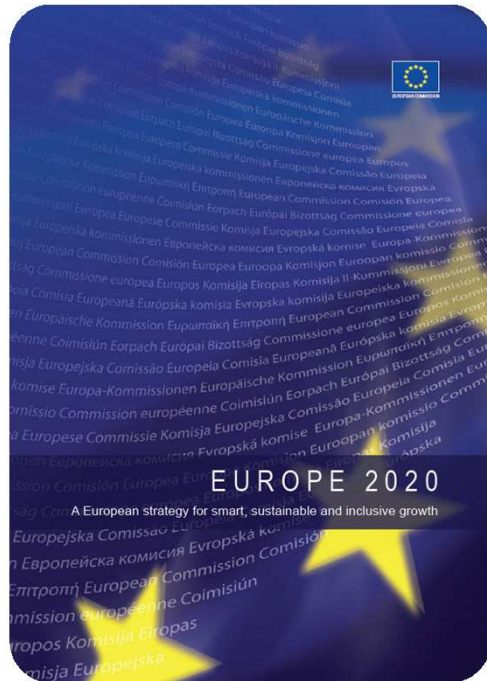


Promote active and healthy ageing: the help of innovation

- Research and community make efforts to point out ways to transform unsuccessful aging, a complex mixture of morbidity, social isolation, poverty, and invisibility into a successful period of life
- Innovative approaches able to improve quality of life are needed in order to prevent development of chronic diseases and to optimize opportunities for health, delaying the onset of frailty and dependency of elderly
- The EU is taking innovative steps to promote quality of life in elderly, engaging public and private partners to support promotion of healthy lifestyles



Background Europe 2020



Priorities:

- Smart Growth
- Sustainable Growth
- Inclusive Growth

Targets:

- EU-wide targets
- National targets

Tools:

- Flagship initiatives
- Existing tools
- Monitoring progress

Smart Growth:

- Innovation Union
- EIP on AHA
- Digital Agenda

Competitive Industries

HORIZON 2020 will:

- build leadership in enabling and industrial technologies, supporting the development of technologies underpinning innovation across a range of sectors, including ICT and space
- have a strong focus on developing European industrial capabilities in *Key Enabling Technologies (KETs)* including:
 - Micro- and nano-electronics
 - Photonics
 - Nanotechnologies
 - Advanced materials
 - Biotechnology
 - Advanced manufacturing and processing



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The transition



2007-2013

HORIZON 2020

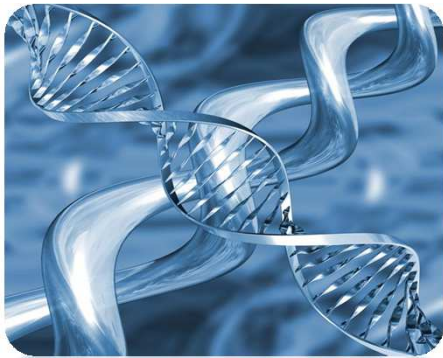
CSFRI

Common Strategic Framework
for Research and Innovation

2014-2020



Horizon 2020



Excellent Science



*Competitive
Industries*



Better Society

Excellence Science

- will support the most talented and creative individuals and their teams to carry out frontier research of the highest quality by building on the success of the European Research Council (ERC)
- will fund collaborative research to open up new and promising fields of research and innovation through support for Future and Emerging Technologies (FET)
- will provide researchers with excellent training and career development opportunities through the Marie Curie Actions
- will ensure Europe has world-class research infrastructures (including e-infrastructures) accessible to all researchers in Europe and beyond



Better Society

- Horizon 2020 reflects the policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere
- A challenge-based approach will bring together resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities
- It will include establishing links with the activities of the European Innovation Partnerships (EIP)
- Funding will be focused on the following challenges:
 - Health, demographic change and wellbeing
 - Food security, sustainable agriculture, marine and maritime research, bio-economy
 - Secure, clean and efficient energy
 - Smart, green and integrated transport
 - Inclusive, innovative and secure societies
 - Climate action, resource efficiency and raw materials





European Commission
Innovation Union



Innovation Union and EIP on AHA

The recent document Innovation Union introduces, as new approach in EU research and innovation, the implementation of the so-called European Innovation Partnerships, challenge-driven actions, results-oriented and focused on the achievement of social benefits.

The partnerships, set up at European, national and regional level, are aimed to involve the entire chain of research and innovation by linking all relevant actors in the research field.

European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) born to improve the elderly quality of life with innovative, clinical, diagnostic and therapeutic solutions, and also to develop new proposals based on ICT platforms and new products, applications and services.



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European Innovation Partnership on Active and Healthy Ageing



Headline target by 2020:

increasing the number of healthy life years (HLYs) by 2 in the EU on average

European Innovation Partnership on Active and Healthy Ageing (EIP on AHA)

A triple win for Europe

- Enabling EU citizens to lead healthy, active and independent lives until old age
- Improving the sustainability and efficiency of social and health care systems
- Developing and deploying innovative solutions, thus enhancing the competitiveness of EU industry through an improved business environment providing the foundations for growth and expansion of new markets, networking with partners worldwide (particularly with the U.S.)





Thematic priority 1 Innovation in support of **AWARNESS, PREVENTION & EARLY DIAGNOSIS**

Thematic scope for actions

- Disease prevention - primary & secondary prevention (lifestyles, early diagnosis, screening, nutrition, physical exercise)
- Health literacy
- Medication compliance/adherence
- Older people's functionality including loss of cognitive functions and frailty



Thematic priority 2 Innovation in support of CARE & CURE

Thematic scope for actions

- Continuum of care
- Multimorbidity
- Chronic disease management
- Business models for more collaborative care systems
- E-health and tele-medicine
- HTA and evidence
- Clinical guidelines



Five agreed Actions

1. "Prescription adherence action at regional level" - within the "Health literacy, patient empowerment, ethics and adherence"
2. "Early diagnosis and intervention action on frailty and malnutrition to prevent functional decline among older people" - within the "Disease prevention, early diagnosis of functional decline"
3. "Program for falls prevention and early diagnosis" - within the "Innovation-enabled personal guidance systems"
4. "Replicating and tutoring integrated care for chronic diseases, including remote monitoring in at least 50 regions and available to at least 1 million patients" - within the "Capacity building for successful integrated care systems"
5. "Global standards development, guidelines for business models and financing for independent living" - within the "Flexible and interoperable ICT solutions for active and independent living"





Italian Areas of interest

- Italy has interest in all areas of the 5 agreed actions
- Many Italian Regions, Institutions and Companies are already working at numerous projects, some of which are presented at this meeting
- The Italian Ministry of Health, in September 2011 chose 3 areas of interest:
 1. Prescription adherence action at regional level
 2. Early diagnosis and intervention action on frailty and malnutrition to prevent functional decline among older people
 3. Global standards development, guidelines for business models and financing for independent living





A1 ACTION GROUP

Prescription and adherence to treatment



Poor Adherence: scientific framework



Poor adherence has been identified by the WHO as a growing global problem which could severely compromise the effectiveness of treatment.

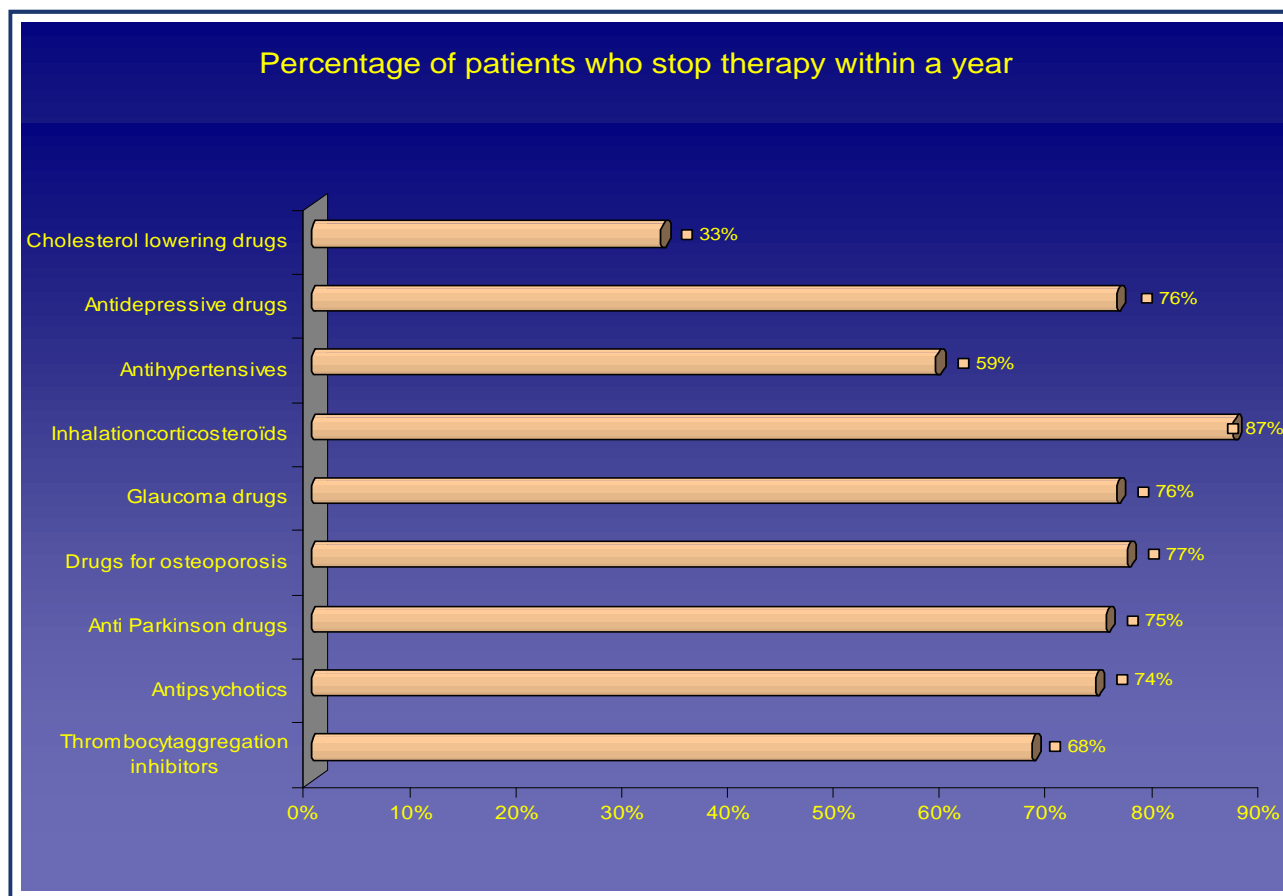
The achievement of an adequate level of adherence means more than just following physician instructions but also it depends on the adoption of a range of virtuous behaviors at individual and social level.

In older people a poor adherence to pharmacological treatment has been reported in 26 - 59% of cases and is associated with a decline in clinical outcome, with consequent increase of health expenditures.

Non-adherence negatively impacts individual quality of life and healthcare systems sustainability.

And it is an almost universal problem....

Different categories of drugs and Adherence



Herings et al. On Chronic Pharmacotherapy. Report 2002

Better compliance to antihypertensive medications reduces cardiovascular risk

- 242,594 pts newly treated for hypertension in 2000-2001 followed until 2007
- 27% of the patients began therapy with a combination of two or more antihypertensive medicines
- During follow-up almost one-half of the patients experienced therapy with at least three antihypertensive medicines
- Co-treatments with lipid-lowering agents were experienced by more than one out of four patients and in more than 10% of the population other cardiovascular medicines were prescribed
- About 13% of the patients had at least one sign of comorbidity
- 190,977 (79%) experienced at least one episode of treatment discontinuation (discontinuers)
- Persistent patients had a 37% reduction in risk compared with discontinuers

Discontinuation and very low or low levels of coverage with antihypertensive therapy were more common in:

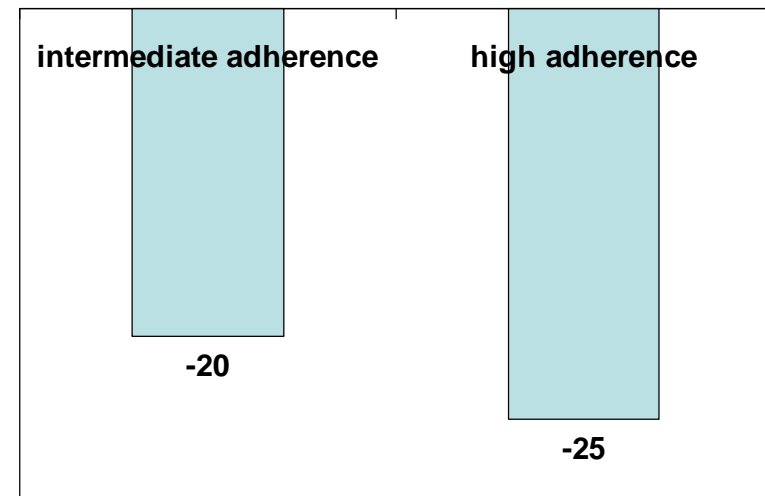
- Women
- younger patients
- patients who began therapy with a combination of 2 or more antihypertensive agents
- patients who did not concomitantly use lipid-lowering agents, antidiabetic or other cardiovascular medicines



Better compliance to antihypertensive medications reduces cardiovascular risk

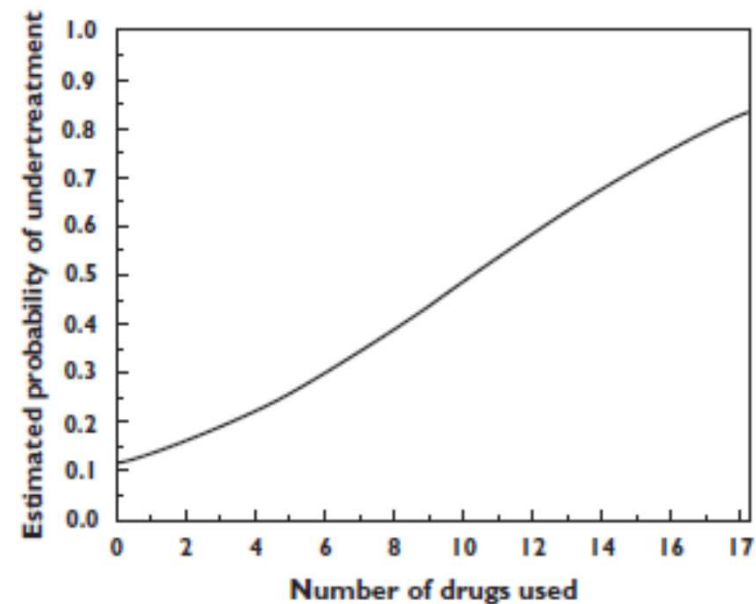
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- About 13% of the patients had at least one sign of comorbidity
- 12,016 pts experienced the outcome (CV event)
- 20%-25% reduced risk of cardiovascular events in pts with intermediate and high adherence compared to those with low adherence

Reduction in risk of CV events in pts with intermediate and high adherence compared to those with low adherence



Relationship between polypharmacy and underprescribing

- Polypharmacy is common among the elderly
- Underprescribing is also frequent
- Optimizing polypharmacy included avoiding underprescription
- 43% of patients who used five or more medicines are undertreated
- In undertreated patients a mean of 1.4 medicines were lacking
- The probability of underprescription increases with the number of drugs used



The Italian Medicines Agency

The Italian Medicines Agency (AIFA), as national authority responsible for drugs regulation in Italy, is continuously committed to promote good health through medicines and to manage the value of medicinal treatments.

AIFA focused its interest on the first area "Prescription adherence action at regional level" and submitted its Commitment on 31st May 2012



Partners – members of AG A1

- AIFA Consortium
- NHS Scotland
- GSK
- CIRFF, University of Naples/Campania Region
- APSS
- University Coimbra
- Department of Health and Consumer Affairs of the Basque Government
- Perugia University
- Education, Health and Society Foundation Murcia
- Veneto Region
- Medical university of Warsaw
- UCC Cork
- General Council of pharmacists
- ParkinsonNet (Radboud University Nijmegen Medical Centre)
- ParkinsonNet (Radboud University Nijmegen Medical Centre)
- GIRP-European Association of Pharmaceutical Full-line Wholesalers, Brussels, Belgium



What is the Action Plan A1 AG about?

Objectives	Activities
1. Improve patients' adherence	Develop early warning systems, IT platforms, electronic tools, alerting systems, assessment tools, pharmaceutical care services, device to monitor drug compliance, integrated group programme to combine medical advice, adherence support services for community pharmacists.
2. Empowerment	Implement exercise training, consistent and reliable use of the «Teachback» approach, patient access to clinical information. Develop a web based social network, physically and intellectually stimulating social activities. Design specific content for informative campaigns. Carry out group therapeutic education and psychological and health counselling.
3. Contribute to the improvement of adherence in the health care system	Develop ICT solutions, a content sharing platform, cost monitoring programmes, electronic prescription tools. Design a specific informative campaigns. Implement pharmaco-vigilance programmes and software, best practices and guidelines. Use of the SPARRA risk prediction algorithm, train health professionals.
4. Contribute to the research and methodology	Develop research on therapies and strategies for poly-medicated patients; an algorithm to identify indicators of adherence. Establish public-private approaches. Evaluate different strategies cost-effectiveness. Perform observational study, cost analysis, health technology assessment of innovative life style model. Use the Scottish patients algorithm.
5. Foster communication	Design database and specific software to support IT platform. Create an EU database of clinical trials for older people. Share pharmaceutical care record across primary and secondary care.





Four main pillars of the ACTION project

1. Utilization of observatories and databases- OsMED AIFA database- focusing on data useful for adherence levels monitoring
2. Introduction of ICT systems (electronic tools, alerting systems, SMS, email) to improve the interactions between the patient, the physician and the pharmacist
3. Use of elderly-friendly products, devices and pharmacological packaging that facilitate the correct use of drug
4. Development of a model with the purpose to improve the concordance between the prescribed treatment and the proper use of therapies.



Expected results

- Improvement of adherence to treatment of chronic diseases and drug consumption rationalization
- Market opportunities for old and new companies in partnership with the health system
- Spread of the results at national and international level with the possibility to "export" our experience to other European areas, which can adopt this model adjust to their needs
- Improved Patients' Empowerment





Working Topics on Prevention of functional decline & frailty

Shared elements to boost actions & deliver solutions

ADVOCACY

Target groups

- Patients organisations
- NGOs
- Government
- Umbrella UE organisations
- Civil institutions

Tools

- Website platforms
- Workshops (patients, pharmacists, GPs...)
- Focal groups
- Mass media campaign
- Conferences
- Peer-review journals
- Social-network
- Brochures

INDUSTRY & MARKET

- Industrial competitiveness engaging design & enterprise partners to develop ICT devices.
- Establish enterprise communities of interest (i.e: digital health consortium).
- Create innovative environments bringing together academia, health sector, private technology to generate patents and products with market added value.
- Create consortia to encourage cooperation between firms, research centres, hospitals and local government to identify business opportunities and market needs.





General objectives

Improve the quality of life of older people. (physical fitness, nutrition status and mental wellbeing)

Contribute to the sustainability of health care costs (personal costs and society costs).

Empower the patients and their carers to enhance personal independency.

Contribute to research and methodology on frailty and ageing.

Promote screening for pre-frailty stages in risk patients and older people.



Target population from commitments

Old people

Healthy and independent old people

Old people in risk of frailty (under nutrition , cognitive impairment, acute diseases...)

Very old people (centenaries)

Independent Patients

Polimedicated patients

Multi-morbidity patients

Chronic diseases patients

Patients in risk of frailty

People with hearing impairment

Vascular disease patients (risk for vascular cognitive impairment)

Dependent patients

Disabled people

Nursing home patients

Dependent people

Terminal patients

Carers

Carers

Health professionals:

physicians, nurses

Patients' groups



Deliverables

1. Guidelines on:

Cost-effective prevention of frailty in chronic health conditions around major life events.

e-learning modules to train health professionals on caring for frailty patients.

Setting up a knowledge network to promote new research and innovations on frailty conditions.

How to improve older workers employment to support better job design related to age.

The role of the physical therapist in physical activity related to healthy ageing.

Pre-frailty diagnosis.

2. ICT devices for:

Pre-frailty screening.

Nutritional status screening.

Improving vitality, mental functioning mobility in frail patients.

Dealing with feeding and food related tasks.

Identifying real needs of older people in relation to food related issues.





Clustering of commitments

- Frailty and functional decline
- Nutrition related to frailty



Civil society's challenge