Abstracts - Plenary Speakers

PL01
Overcoming the Stigma of Dementia
Marc Wortmann, UK

Dementia is the name of a group of brain diseases that affect memory, thinking, behaviour and emotion. Alzheimer’s disease is the most common form of dementia. More than 35 million people worldwide have dementia and the number will double in the next 20 years. This also has a huge impact on their families.

People with dementia are often isolated because of stigma or the possibility of negative reactions from neighbours and relatives to behavioural and psychological symptoms. To respond to this problem, Alzheimer’s Disease International (ADI) has produced a report on stigma in September 2012, including an anonymous online survey of people with dementia and family carers about their experiences of stigma.

The response to our survey was much larger than expected, with around 2,500 responses from 54 countries. In the English version of the survey, 127 respondents were people with dementia and 1716 were family or informal carers. Nearly two out of three respondents feel that there is little or no understanding of dementia in their countries. By overwhelming margins, both people with dementia and carers believe that within their country there are negative associations for those diagnosed. People with dementia can be treated well, but it does not happen to the majority of respondents. One in four (24%) cited stigma as a reason to conceal their diagnosis from others.

The aim of this report is to promote an enabling society for people with dementia in order to reduce stigma and share best practices in how this can be done. The findings are summarised in ten key recommendations to overcome the stigma of dementia. We also give a number of good examples how to make your society more dementia friendly.

PL02
Psychological Effects of Alzheimer’s Disease on Families
Diane Mansour, Lebanon

This presentation will expose the stress and burden inflicted on families faced with Alzheimer’s disease. It will give a short resume on the clinical deterioration taking place in the brain. Describe the impact of the word “dementia” throughout the ages. Highlight the stigma and discrimination surrounding mental health in our communities; and the challenges faced by modern life factors.

It will emphasize on the benefit of programs and psychological support to help provide better quality of life to people with dementia and their families!

“The unique curse of Alzheimer’s is that it ravages several victims for every brain it infects. Close friends and loved ones are forced not only to witness an excruciating fade but also increasingly to step in and compensate for lost abilities. A person with dementia relies increasingly – and, in the fullness of time, completely – on the care of others. The caregiver!

The caregiver must preside over the degeneration of someone he or she loves very much; must do this for years and years with the news getting worse, must negotiate impossible requests and fantastic observations; must put up sometimes with deranged but at the same time very personal insults; and must somehow learn to smile through it all. The work shift in this literally thankless job lasts for twenty-four hours a day, seven days a week.

The stress facing caregivers is so extraordinary that it commonly leads to very serious problems on its own. “Caregiver’s Dementia” is widely used to describe the overpowering symptoms of fatigue and forgetfulness that often come with the role of Alzheimer’s caregiver. The term is not intended to refer to a biological dementia. Still, this stress-induced psychological condition can be very, very serious. One estimate has roughly half of all caregivers struggling with clinical depression.”

PL03
Dementia: A Global Public Health Challenge
Dr. Jacob Roy Kuriakose, India

With increasing numbers, rising cost, public ignorance, in sufficient governmental attention, in adequate services; dementia has emerged as a major public health challenge.

Alzheimer's disease international the world federation of 79 national Alzheimer's Associations have been bringing out world dementia reports annually epidemiological data, cost of dementia care, early diagnosis and intervention, combating stigma focusing on and continuum of care. All these reports reiterate the impact of dementia on the individual, families and the society.

The presentation advocates for active intervention by the governments, both central and state to own up the responsibility and consider dementia as a national health and social welfare priority. Examples from countries which have implemented national dementia plans will be included. Key elements of WHO report on dementia; a public health priority will also be presented.

PL04
Current and Future Treatments
Professor Steven De Kosky, USA

Progress in understanding the clinical course and underlying pathobiology of Alzheimer’s Disease (AD) has accelerated over the past 30 years. Initial discoveries about neurotransmitter system failures in AD led to the development and approval of several approved medications attempting to boost or regulate such transmitter dysfunction. With further understanding of the neuropathology leading to amyloid and neuritic plaques, tau and neurofibrillary tangles, and pathological cascades involving inflammation, oxidative stress, microglial and astrocytic activation, disease modifying strategies have emerged and are in all stages of development from preclinical to Phase III clinical trials in patients. In addition, advances in diagnostic markers and longitudinal studies of clinical course and concomitant imaging have led to identification of Prodromal AD (mild cognitive impairment; MCI), and “PreClinical AD,” denoted by the presence of amyloid mismetabolism and amyloid plaques of cognitively normal individuals who are hence at elevated risk of developing clinical symptoms of dementia. Therapeutic efforts are not directed at both Mild to Moderate AD, MCI and PreClinical AD, using disease-modifying interventions that would delay or “prevent” emergence of cognitive symptoms for years. We will review the history of the research findings that led to development of new medications, early efforts to develop symptomatic medications and antiamyloid drugs, and then the new drugs in or coming into the testing pipeline, as well as the biomarkers that are used as valuable indexes of medication target engagement and successful slowing or reversal of the pathological progression.

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PL05
Novel Approaches to Diagnosis
Professor Claude Wischik, UK
The last 20 years of Alzheimer’s disease (AD) research have been dominated by the beta-amyloid hypothesis. Nineteen trials aimed at preventing or clearing beta-amyloid pathology conducted in 15,000 subjects have so far failed to demonstrate efficacy. A tau-based theory may provide a better alternative for understanding pathogenesis and approach to treatment. The neurofibrillary tangle discovered by Alzheimer is composed predominantly of a truncated fragment from the microtubule-associated protein tau. This truncated tau is capable of catalyzing the conversion of normal soluble tau into proteolytically stable aggregated oligomeric and fibrillar forms which are toxic and spread to neighbouring neurons. In other words, the truncated core tau fragment of the PHF behaviours as an endogenously generated infectious prion. Initiation of the process is most likely linked to age-related failure of endosomal-lysosomal clearance pathways required for turnover of mitochondria. The pattern of spread of tau pathology along neural networks is well described by a 6-stage system (Braka stage, BS) which is highly correlated with cognitive decline. Prevalence of brain Tau pathology in the G.C.C. states can be estimated based on age-specific BS transition probabilities. Of the 5.82 million people in the G.C.C. states over the age of 45 in 2010, 47% (2.71 million) are estimated to have some degree of brain tau pathology; 1.78 million at BS 1, 0.47 million at BS2, 0.34 million at BS 3 and 0.12 million at BS 4 or beyond. Only the latter contribute to commonly available estimates of AD prevalence, whereas the early stages of the pathology are much more widespread in the population. The total with brain tau pathology is expected to increase to 8.36 million in 2030 and to 17 million in 2050 as the over-45 population increases to 19 million in 2030 and 31 million in 2050 based on W.H.O. population projections. There is therefore an urgent need to develop treatments which can arrest the initiation and spread of brain tau pathology. In a phase 2 trial of 321 subjects, the effect size seen with the tau aggregation inhibitor methylthionine (MT) in mild and moderate AD was an 85% ± 20% reduction in rate of cognitive decline over 2 years. Confirmation of these findings awaits the results of global phase 3 trials which are now underway with LMTX, a reduced version of MT that has improved tolerability and absorption. If successful in AD, treatment with LMTX could be used preventative in the future at early stages of the disease process.

PL06
Assess, Diagnosis, Early Intervention: Awareness for Medical and Para-Medical Professionals
Dr. Raymond H. Hamden and Nicole El Marj, United Arab Emirates
Abstract text: Alzheimer’s disease (AD) is a progressive type of dementia that can be diagnosed with observations, clinical interviews, a physical examination and a battery of tests. Professionals rely on detailed medical workup via this clinical assessment to diagnose AD and/or other dementia. A clinical assessment involves many different tests, such as mental tests designed to assess thinking and memory and/or brain scans. The expert’s three goals in a clinical assessment for dementia are to document evidence of cognitive impairment, rule out other common causes for impaired thinking, and determine if other changes noted are consistent with Alzheimer’s or another cause of dementia. When seeing a patient concerned about memory problems or other symptoms of dementia, the information gathered is through these interventions and tests:

- History of the present illness
- Review of past medical history and other related background information
- Cognitive screening

In addition, the Medical Professional will refer the patient being seen for dementia symptoms to the following kinds of exams, which are administered by specialists in:

- A neuropsychological evaluation
- A brain scan
- Other tests for various signs noted by the referring physician

Educational Objectives:

- Learn to increase clinical accuracy in diagnosing Alzheimer’s disease
- Sensitivity to early signs and symptoms will be addressed
- When to refer for psychological assessment and remediation
- Lessen hesitation time to diagnose and refer for psychological treatment

- To increase clinical accuracy in diagnosing AD
- To better understand early signs and symptoms
- To recognize when to seek psychological assessment and remediation
- To clarify progressive stages of AD (mild, moderate, severe)
- To enhance working memory
- To retain reasoning and communication skills

PL07
Non-pharmacological Interventions in Response to Behaviours that Challenge
Professor Graham Stokes, UK
The unacceptable situation facing hundreds of thousands of people with dementia is that many are taking antipsychotic medication they do not need and that could possibly harm them. Although there are clinical situations where a time limited prescription of an antipsychotic drug may be appropriate:

- Antipsychotic drugs are overprescribed
- Their effectiveness is more modest than previously supposed and hence may be of little or no benefit
- They are associated with serious adverse events such as increased cognitive impairment, stroke, falls, fractures and premature death.

The principle reason for prescribing antipsychotics is to manage agitation and aggression, and control other behaviours that challenge us, all sometimes referred to as Behavioural and Psychological Symptoms of Dementia [BPSD]. Unfortunately, until the mid-1980s the ‘medical model’ dominated our thinking and so the only approach to understanding dementia was through the prism of disease. To a significant extent the person and their quality of life were seen not to matter and all that did was the diagnosis. Known as ‘diagnostic overshadowing’ it meant that any behaviour in dementia that troubled others because of risk, inconvenience or upset was seen as a symptom of dementia and ‘therapeutic nihilism’ prevailed. All that could be done was to control and contain these challenging behaviours and as an alternative to isolation and restraint that had long been associated with abuse, antipsychotics were used as sedatives to manage the behaviour. However, 25 years ago a different way of thinking started to transform our understanding of emotions and behaviour in dementia so nowadays challenging behaviours are no longer automatically assumed to be symptoms of brain pathology. Instead they are seen as evidence of people with dementia trying to communicate their needs and reacting to their quality of life. As the person acts out who they are, what they want, what they fear or dislike we are faced with behaviours that are apparently meaningless and which we struggle to cope with. Behaviours which may communicate more about how we are approaching and talking to a person with dementia or our lack of knowledge of their needs and history than it does about them and their dementia.

As we understand behaviour in dementia that challenges us better than we did before it is now accepted that antipsychotics should only be prescribed for a time-limited period when either distress is severe or risks are unacceptable. Instead we have alternative person-centred ways of working that provide us with options to medication. This does not mean antipsychotics are rejected at all times but instead by working in partnership with family doctors and consultant psychiatrists we provide the most effective and least harmful interventions when faced with agitation, aggression and other challenging behaviours, interventions that are more likely to be non-pharmacological.

PL08
Behavioural and Psychological Symptoms of Dementia
Dr. Nasser Loza and Dr. Mairose Doss, Egypt
In the past 15 to 20 years, dramatic progress has been made in the field of age related diseases, most notably progressive dementing disorders. As the population aged 65 and over is expected to continuously grow, a clear understanding of the behavioural and psychological symptoms of dementia is essential. Of equal importance is the proper management of these symptoms, providing optimum care to not only patients, but their families and care givers who can be an essential factor in improving the quality of life of these patients. Clinical care of patients with dementia is still at its infancy, but with correct diagnosis of different types of dementia, additional progress can be made in its treatment. Witnessing the sociocultural changes in the region, alternative non-pharmacological treatment is necessary, as well as the promotion of facilities and services that cater to those affected.
PL09
A Report on National Initiatives in Hospital Care for People with Dementia
Michael Splaine, USA
Many persons with Alzheimer’s and other dementia suffer from other chronic diseases or experience medical conditions that require hospitalization. Individuals with Alzheimer’s disease use a disproportionate amount of health care resources; for instance, in studies in developed countries it has been found that they are hospitalized 2-3 times as often as people the same age who do not have the disease.
Globally it is estimated that only about 20% of persons suffering with an irreversible dementia have a formal diagnosis or have that diagnosis noted in a medical records. Thus when hospital care is needed, there is a very good likelihood that their cognitive impairment may be missed or not taken account of in their care planning.
In the last 6 years, several countries have developed comprehensive national government Alzheimer’s or dementia plans and the World Health Organization has published Dementia: A Global Public Health Priority (April 2011). In addition, many sub-national governments have also created dementia plans. These plans have generally been built with wide expert and general public participation and cover a range of recommendations in research, care and public awareness for both the public and private sector, including hospital care. Dementia plan activities have been implemented by public and private sector and through public/private partnerships.
This talk will present several projects being implemented in hospital care and summarize select innovations for consideration of the audience.

Abstracts – Oral

OC01
The Relationship between Associative Learning, Transfer Generalization, and Homocysteine Levels in Mild Cognitive Impairment
Abeer Mahmoud Essa, Egypt
Ahmed A. Moustafa1, Doaa H. Hewedi2, Abeer M. Essa2, Catherine E. Myers2, Hisham A. Sadek2
Previous studies have shown that high total homocysteine levels are associated with Alzheimer’s disease (AD) and mild cognitive impairment (MCI).
Objectives: Prior studies suggest that learning and generalization of learned rules are subserved by different brain systems, namely the basal ganglia and hippocampus. In the current study, we test if these cognitive processes are affected by homocysteine levels in healthy controls and individuals with MCI.
Methods: In this study, we test the relationship between cognitive function and total homocysteine levels in healthy subjects (Global Dementia Rating, CDR = 0) and individuals with MCI (CDR = 0.5). We have used a cognitive task that tests learning and generalization of rules, processes that have been previously shown to rely on the integrity of the striatal and hippocampal regions, respectively.
Results: We found that total homocysteine levels are higher in MCI individuals than in healthy controls. Unlike what we expected, we found no difference between MCI subjects and healthy controls in learning and generalization. We conducted further analysis after diverging MCI subjects in two groups, depending on their Global Deterioration Scale (GDS) scores; individuals with very mild cognitive decline (vMCD, GDS = 2) and mild cognitive decline (MCD, GDS = 3). There was no difference among the two MCI and healthy control groups in learning performance. However, we found that individuals with MCD make more generalization errors than healthy controls and individuals with vMCD. We found no difference in the number of generalization errors between healthy controls and MCI individuals with vMCD. In addition, interestingly, we found that total homocysteine levels correlate positively with generalization errors, but not with learning errors.
Conclusion: Our results are in agreement with prior results showing a link between hippocampal function, generalization performance, and total homocysteine levels. Importantly, our study is perhaps among the first to test the relationship between learning (and generalization) of rules and homocysteine levels in healthy controls and individuals with MCI.

OC02
Comprehensive Prevention Scheme for Healthy Seniors
Hossein Ahmad, Iran
L. Haftian1, A. Mirhaj1, M. Salehi1, F. Farinh1, M. Khansari1
1Head Education & Research, 2Head Public Awareness & Education, 1Chief Executive Officer, 2Deputy Chief Executive Director Iran Alzheimer’s Association
Objectives: Worldwide the elderly population is rapidly increasing. This will create a huge problem as it has been accepted that one of the main risk factors for dementia is age. In the Western world, s ervices for promotion of health and prevention of disease in the elderly have been created in order to achieve healthier and more independent aging. In Iran, the increased life expectancy has created a gradual aging population and as a result the related health issues such as dementia, depression, isolation and lack of social interaction, hope, hobby, social support have been on the rise imposing more social and economic problems. In order to promote healthy aging in Iran, in 2005, Iran Alzheimer’s Association initiated a comprehensive prevention scheme for healthy seniors empowering individuals to reduce risk factors of dementia.
Methods: In this program, the focus is on physical and mental health, spirituality and social activities. The participants experience the feeling of sense of competence, self-determination, personal consequence, meaning and trust which are components of empowerment. The stages in developing the cycle of the project include identifying the new target groups, laying down the infrastructure, hold meetings explaining the project, identify the priorities, plan suitable intervention, execute the plan, monitor, keep records and transfer knowledge.
Results: IAA takes pride in running successfully this scheme for 8 consecutive years in different parts of Tehran. The seniors Prevention Scheme is operating in different locations and representatives of each group meet every 3 months to report their activities to the group and plan their future quarterly plans.
Conclusion: The success of this project persuaded us to share our experience with other countries in the Middle East who have a similar culture. This essay is an overall view of what has been done in order to avoid dementia.
OC04
Vascular Dementia and Alzheimer Disease, Challenges and Grey Zone of Uncertainty

Dr. Kamal Kallab, Lebanon

Abstract text: Vascular dementia (VaD) and Alzheimer disease (AD) show many differences in terms of disease history and objective findings of neurological exam. AD has a progressive course, involves associative cortex sparing primary functional regions and is not necessarily associated with vascular risk factors. VaD in contrary occurs in patients known to have a vasculopathy (usually atherosclerotic), evolves by episodes of acute strokes with possible partial recovery after each episode, even if there are many asymptomatic strokes and despite the heterogeneity of the cerebrovascular diseases. Such pathophysiology result in objective focal motor, sensory and language disturbances revealed on the clinical exam. Their prevention policy and management plan are not stackable. In the other hand, these two diseases share in common many features (genetic markers, epidemiological data and possible etiological factors). In addition, their association is frequent and the pure forms are rare. This topic will try to delineate the frontiers and explore the common fields of these two entities and define a pragmatic comprehensive approach for the preservation of “mental capital” in specific and “quality of life” in general.

OC05
Different Memory Types

Dr. Suhail Al-Rukn, United Arab Emirates

Abstract Text: One of the most fascinating and important functions of the brain is its remarkable ability to form memories. The study of human memory stretches back at least 2,000 years to Aristotle’s early attempts to understand memory in his treatise “On the Soul”. There are many types of human memories, including: immediate memory, short memory, long memory, working memory, visual memory, declarative memory and non-declarative memory. Dysfunction in any types will give a memory problem.

OC06
Frailty and Alzheimer’s Disease

Dr. Elie Stephan, Lebanon

Abstract text: Frailty as defined by Fried is an important primary syndrome in geriatric field. It has a big relation with sarcopenia and Mutual effects. Many reports showed that Frail people end up by having Dementia of Alzheimer’s Type. And many others reports showed the beneficial effects of physical exercise on cognitive functions. In this presentation I will try to focus on the intersection between Alzheimer’s disease and Frailty and the possibility to be a risk factor for developing dementia.

OC07
Full Service Alzheimer’s Disease Diagnosis and Management

Dr. Emer Macsweeny, UK

Cognitive impairment affects millions of people and their families, and has significant medical, social and economic costs. The traditional medical approach to identifying, diagnosing, treating and managing these conditions is out dated and ineffective - a new paradigm is needed.

Alzheimer’s disease is a typical example. Patient’s often present later than is necessary, the diagnostic pathway is fragmented, and ongoing support in parallel to drug therapy is uncoordinated and “one size fits all”

A multi-disciplinary evidence-based diagnostic pathway, leading to coordinated on going specialist care support, alongside access to new disease modifying drugs, has the potential to provide a leap forward in preserving quality of life, and could even achieve “Alzheimer’s disease without dementia”. The human and social impact of this type of integrated, end to end, approach could be enormous across the spectrum of the causes of cognitive impairment.

Through selected clinical case studies you will learn about how to implement this new approach, and the benefits to patients, as well as practical guidance for the doctor’s office when a patient presents and asks “Dr, is my memory normal?”

OC08
Prevalence of Dementia: A Pilot Study in Lebanon

Monique Chaaya, Lebanon

Chaaya, M.¹, Phung, K.², Waldemar, G.³, Atweh, S.⁴, Asmar, K.⁴, Ghunis, H.⁴, Karam, G.⁴, Khoury, P.¹, Prince, M.²

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Objectives: With increase in life expectancy in developing countries, incidence and prevalence of dementia are expected to increase. No studies addressed the burden of dementia in Lebanon and no Arabic scales exist to provide an accurate diagnosis.

The specific objectives of the study were to: 1.validate the Arabic version of the 10/66 Dementia Research Group package and 2 brief screening scales RUDAS and ICODE; 2.Assess prevalence of dementia and its associated factors in Lebanon.

Methods: The 1st phase of the study was validation (in 2011). The 2nd was a household survey to assess dementia prevalence and establish baseline data on potential risk factors.

For the validation study, 244 participants older than 65 years were recruited from social organizations: 142 controls and 100 cases with mild or moderate dementia. Clinicians used DSM_IV in their diagnosis and rated dementia severity using CDR Scale. Interviewers blind to the cognitive status administered the 10/66 diagnostic package, RUDAS and ICODE.

For the survey, 521 participants, 65 years and above, are being recruited from Beirut and Mount Lebanon. The 10/66 diagnostic package, back ground and risk factor questionnaires are being administered. Data collection is taking place in random clusters of the capital and random villages in Mount Lebanon. Trained interviewers are collecting the data.

Results: The 10/66 DRG showed excellent psychometric properties: sensitivity (89.5 %), specificity (85.1%), PPV (82.6%), and low FPR among controls with low education and controls with depression. It had a greater discriminatory ability than its sub-components. The Arabic RUDAS exhibited good sensitivity (84.0%) and specificity (84.5%), using the recommended cut off of 22/30. Its PPV was 79.3%, and a ROC area of 0.64.

For the household survey, a total of 230 participants were interviewed. Preliminary Data analysis will be presented. The field is very challenging and refusal is relatively high in high SES areas.

Conclusion: The study provided an excellent tool to diagnose dementia among Arabic speaking population with high literacy rate and 2 other tools that could be useful as a first screening in clinical settings.

Acknowledgement: The study was funded by the Fogarty International Center, American National Institute of Health and National Institute of Aging, grant number 1R21AG039333-01 under the program “Brain Disorders in the Developing World: Research Across Lifespan (BRAIN)”. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding agencies. The study is collaboration between the Department of Epidemiology and Population Health, Faculty of Health Sciences, and the Department of Neurology from the American University of Beirut, Lebanon; the Danish Dementia Research Center, Department of Neurology, Copenhagen University Hospital, Denmark; and the Department of Health Service and Population Research, Institute of Psychiatry, King’s College London, London, UK.

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**OC09**

Rate and Correlates of Dementia Among Elderly Attending Primary Healthcare Centres in Al-Dakhliyah Region, Sultanate of Oman

Sultana Mohammed Saeif Al-Sabahi, Oman

Sultana Mohammed Al-Sabah, Hamid Nasser Al Sinawi, Saleh Saeif Al-Hinai, Randa Mahmoud Yousef

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**Background:** The extent of dementia among elderly population in Oman has not been studied. The extraction and analysis of information of the comprehensive health assessment of elderly population aimed at revealing the rates and correlates of dementia among community-dwellers elderly population.

**Methods:** Records of the comprehensive geriatric assessment of (number here) patients attending Primary care clinics in Al-Dakhliyah between 2008 and 2010 were reviewed. Data covered socio-demographic characteristics, medical and nutrition evaluation, assessment of functional abilities and the screening for depression and dementia. Logistic regression analyses were used to identify the significant determinants of dementia; at the 5% level.

**Results:** The rate of dementia was 25.62% being higher among women (59.16%) than men (40.84%). The majority of elderly (87.87%) were having mild dementia. Dementia was independently predicted by depression (OR=3.60; 95% CI= 2.58, 5.02), impairment in ADL (OR=2.47; 95% CI= 1.82, 3.36), divorce (OR=2.17; 95% CI= 1.22, 3.90), mobility restriction (OR=1.92; 95% CI= 1.17, 1.76), older age of 70 to less than 80 (OR=1.39; 95% CI= 1.17, 2.16), impaired in ADL (OR=1.49; 95% CI= 1.07, 2.08) and female gender (OR=1.41; 95% CI= 1.04, 1.90). The exclusion of depression from the model revealed that dementia was additionally predicted by social risk (OR=1.65; 95% CI= 1.17, 2.36).

**Conclusion:** Dementia is prevalent among primary care attendees and it under diagnosed as it is often viewed as normal part of the aging process. Identifying correlates can help early diagnosis. Future studies are recommended to evaluate the effect of management of dementia among elderly at primary healthcare facilities on their health status, functional abilities and quality of life.

**OC12**

Status of Alzheimer in Dubai

Dr. Mohammed Gamal El Noamani, United Arab Emirates

**Background:** The elderly population comprises less than 5 per cent. In 2010; there were nearly 40,000 people over the age of 60. The Ministry of Health expects that number to increase by 20 per cent by 2020. At the same time, more women are working outside of the home, meaning that the cultural paradigm of relatives caring for their elders is shifting.

*The geriatric population may only comprise a few percentage points of the entire cohort, but that runs into thousands when you look at the raw numbers. Emiratis over 60 has increased in five years, from 32,400 in 2005 to about 39,400 in 2010, and the Ministry of Health expects it to pass 47,000 by 2020. Experts say that the UAE will need to expand the country’s elderly medical infrastructure as currently only 5 units are caring for elderly throughout UAE.

Dubai Health Authority launched on 3rd June 2013 Alzheimer support group and Alzheimer hotline. Due to lack of any epidemiological data regarding dementia and Alzheimer in Dubai we are currently applying a memory loss screening Tool for caregivers/family to those above sixty five years visiting Dubai health centers, day care and community gathering center.

To come up with a profile for those who may be in need for Dubai Alzheimer support group help

**Results:** The study still ongoing, yet till now 14.2% of the population screened shown to have Alzheimer symptoms and only 3% shown to have Alzheimer diagnosis from their medical records.

**OC13**

Health Care Services for the Old Middle East Populations

Dr. Salwa Alsuwaidi, United Arab Emirates

Abstract text: The world is experiencing a major demographic transformation globally and the Middle East is not an exception of the same. Today, about two third of all older people are living in the developing world; mainly Asia, and particularly China and India. In the Arab countries the number of elderly is increasing due to the improvement in health care services as well as the eradication of most of the infectious diseases that was causing early death. Middle Eastern countries have certain cultural, social and economic characteristics in common with similar aspiration and this affect how to view the elderly and their needs. Geriatric Medicine is a relatively new branch of medicine in the Middle East that has recently started getting attention. However some Middle East countries lack geriatricians and others have highly specialized geriatric clinics! The general insufficient numbers of trained geriatricians and gerontologists among health professionals seriously undermines the ability of the country’s health care system to adequately assess, treat, and rehabilitate the growing aging population. The aim of this oral presentation is to introduce the audience to the different health care services available in the Middle East countries as well as the challenges and opportunities facing health care services for the elderly in the Middle East.

**OC14**

“Touching Care” E-Healthcare Mobile Application Contributes to Caregivers’ Quality of Life

Rawad Sheikh Al Shabab, Saudi Arabia

**Dar Al Helima College, Jeddah**

**Objectives:** According to the World Bank “M-health—the use of mobile applications for healthcare—is a young and dynamic way that could improve the well-being of people around the world. M-health has proved to be a success across various initiatives around the world by improving healthcare delivery in various ways”. Therefore, there is a significant need to support caregivers on the go through effective, easy to use, customized mobile application that empower caregivers to have a better quality of life and their loved ones affected with Alzheimer’s disease.

**Methods:** “Touching Care” application was pilot tested at leading hospitals regionally and internationally such as: “IMC Hospital” in partnership with “Cleveland Clinics” and “AUBMC” American University of Beirut Medical City along with a number of well-recognized Alzheimer’s Associations regionally and globally. This effort aimed to capture caregiver’s requirements, challenges and key insights to develop “Touching Care” mobile application in the best possible way.

**Results:** “Touching Care” mobile application is successfully launched on Apple Store and generated extensive media coverage across all leading channels in the Middle East along with media press.

**Conclusion:** In conclusion, as Alzheimer’s disease is continuing to grow rapidly, the need for E-healthcare tools that support caregivers, physicians and patients is also becoming an inevitable necessity, especially as the disease requires continuous tracking and support. Hence, “Touching Care” aims to improve the quality of lives of caregivers, Alzheimer’s patients and create a dementia friendly community.
OC15
“Introducing Yecco” Innovative Technology to Assist the Day-to-Day Lives of Caregivers
Janet Jadavji, UK
Founder and CEO, Yecco

Objectives: Many families around the world struggle with caregiving for someone living with Alzheimer’s disease or other dementias. They have problems in understanding the disease, where to get a proper diagnosis and how to manage the care after someone has been diagnosed. The fact that most health systems are fragmented makes this even more challenging.

To help these families and especially the main caregiver, Yecco was developed as a FREE online tool. Yecco is an integrated communication and care management platform for families, carers and professionals, improving support and care of a person living with dementia. It uses a modern private social network platform, mobile apps and a tablet application. The creator is both a health care professional and carer herself of someone with Alzheimer’s.

Vital medical and financial information is stored securely and events tagged for purposes of assessment. Different access is granted to linked members for purposes of confidentiality. Forums provide global information to inform, share and educate families and researchers in trends on health problems. A user rated service and products directory brings vital information to both carers and professionals to help improve the quality and accessibility of care. A shop provides the ability to purchase items required for supporting people with memory and disability problems.

Yecco can be translated into different languages and can be adapted to suit a countries need. Professionals are able to export information and monitors can be linked to the app.

OC16
Support Groups for Family Caregivers of Dementia Patients in Saudi Arabia: Obstacles and Opportunities
Sara Faisal Al Rasheed, Saudi Arabia
S Al Rasheed, F Al Wahabi
1Riyadh, Saudia Arabia, 2Saudat Alzheimer’s Disease Association

Objectives: Family members who care for patients with Alzheimer’s disease experience significant stress, both emotionally and physically. Sharing experiences and communicating with other caregivers could be a positive and motivating step. Evidence shows that support groups have a significant positive effect on caregivers psychological well-being, depression, burden and social outcomes. Despite that, the existence of formal support groups for caregivers involved with patients affected by Alzheimer disease and similar conditions has been very minimal in the middle east, if any. In response to repeated request by family caregivers, the Saudi Alzheimer disease association decided to initiate the process of establishing a support group(s) in Riyadh City.

Methods: The proposed practice of running support groups was based after reviewing similar international experiences. It was discussed by a group of caregivers, health educator, geriatric psychiatrist and social workers. The project was publicized through social media, SMS messages and phone calls to registered caregiver. It received very positive responses. The determined evidence of success were: 1) A minimum of 8 attendees per group 2) An attendance rate of 60% per member to be counted every 10 consecutive meetings.

Results: The attendance rate was less than what was expected and the proposed evidence of success were not achieved. Feedback was obtained from the registered caregivers.

Conclusion: Starting support group(s) for dementia caregivers should take into account various cultural factors more carefully. Published predictors of success are reviewed.

OC17
Mediterranean Alzheimer Alliance: Making Alzheimer’s Disease a Priority across the Mediterranean
Palermiti Federico, Monaco
F PALERMITI

Monegasque Association for the research on Alzheimer’s disease (AMPA), Monaco

Objectives: The fight against Alzheimer’s disease is one of the biggest challenges for our aging societies. Over the next 20 years, experts expect the number of people in the world with Alzheimer’s disease to increase significantly. However, this increase will be three-fold in low and middle-income, especially in North Africa and the Middle East. The countries outlining the Mediterranean are united by historical, geographical and cultural links, but more importantly by common values of solidarity. There is still little knowledge about the problems surrounding Alzheimer’s disease, which remains under-estimated and insufficiently documented in many Mediterranean countries, especially in North Africa. This situation is set to have a dramatic impact on human, sanitary and social society across the Mediterranean.

Methods: By observing and understanding the current measures, as well as the emerging issues and requirements for the future, common and adapted solutions for care, research and public policy could be more rapidly identified.

Results: Upon the initiative of the Monegasque Association for research on Alzheimer’s disease (AMPA), a Mediterranean Alzheimer Alliance was launched in April 2013 in Marrakech and brings together over a fifteen Mediterranean countries. This network, composed of Alzheimer associations, scientific experts and health care professionals from the Mediterranean region, not only aims to share and exchange their knowledge and practice but also put forward recommendations to authorities on a local and international level. The first step of this unprecedented project is to establish a report on the needs in these countries and an analysis of the cultural and societal challenges in the Northern Mediterranean countries regarding care for elderly migrants with cognitive disorders.

Conclusion: This session will present the first achievements and recommendations made by the Mediterranean Alzheimer Alliance in order to make sure that Alzheimer’s disease becomes a priority in the Mediterranean region.

OC18
A National Photography Competition Aiming at Reduction of Stigma in the Society Improving Quality Life of People with Dementia
Hossein Nahvinejad, Iran
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1Deputy Chief Executive Director, 2Director of Public Relations, 3Head Education & Research, 4Chief Executive Officer, 5Overseas PR- coordinator, Iran Alzheimer’s Association

Objectives: Stigma associated to dementia can negatively affect all aspects of a family’s social life. People with dementia can be hidden or isolated due to the possibility of negative reaction to behavioral and psychological symptoms. Stigma can prevent them seeking help to improve their quality of life. In order to raise quality life of people with dementia in the country, Iran Alzheimer Association initiated a photography competition with two themes, aging and Alzheimer’s. The aim was to erase the negative image of dementia, create a positive effect through photos, connect the different generations together and ease their communication. Ultimately the goal was to reduce stigma.

Method: The event was widely publicized in media. IAA received 2000 photos of which 60 were selected by the jury. An exhibition was held and in the closing ceremony, prizes were handed out to the winners.

Results: The number of photos received from across the country indicates that IAA has been able to raise awareness about aging and dementia. The project has created a useful photography bank for IAA. Initially, people were reluctant to be photographed. IAA has been able to adapt the WAD posters with some of the photographs for two consecutive years since the locals relate to them easier. ADI has, also, used some of the photos in their 2013 WAD materials which shows the benefit of competition has been global.

Conclusion: This project can be executed in many parts of world especially in the Middle East which has a similar culture. It is cheap. It gives better image of the illness, raises awareness, quality of life and reduces stigma. This essay is an overall view of what has been done.
Developing Dementia Awareness Among Community and Health Care Professionals in Egypt

Amira Abdou El Baqary, Egypt

Introduction: The proportion of old people is increasing due to the improvement in health care and scientific development. Although the people now live longer, the ageing population faces many health challenges which affect their quality of life. Dementia is one of these challenges as it is considered to be one of the disorders which attack elderly and affect their memory, mental abilities, independence, decision making and most cognitive functions. Therefore, the focus on dementia has increased around the world due to the rapid spread of the syndrome and the economical and psychosocial burden it cause for patients, families and communities. The rapid increase in dementia is striking worldwide as it attacks around 35 million people currently around the world and according to the recent world Health Organization (WHO) report it will affect 115 million person by 2050. Although the ageing population in Egypt at the age of 65 and older are less than 5% of the Egyptian population but the previous demographic transition is expected to be accompanied by an increase in dementia patients in Egypt and will affect priorities of health care needs as well.

Objectives:

• Start dementia awareness campaign at different places in Egypt
• Evaluate the effect of the course on patients’ outcomes

Method:

• Developing workshops and seminars on dementia awareness and communication problems
• Developing posters about the experience of dementia
• Use educational videos from Dementia Service Development Center at Sterling University

Conclusion:

• Positive outcomes was detected from staff evaluation and patient and families reflection
• More job satisfaction appeared with care givers extensive seminars and courses will take place at different governorates

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P01
Neuroligin 1 and Neuroligin 2 in Alzheimer’s Disease
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Background: Synaptic damage is a hallmark of Alzheimer’s disease, and is the best correlate of cognitive impairment ante mortem. Synapses are characterized by different protein complexes arranged at tightly apposed pre- and postsynaptic terminals. The best-established trans-synaptic complex, which mediates both synaptogenesis and synaptic stability, comprises the binding between presynaptic neurexins and postsynaptic neuroligins. Fluctuations in the levels of these protein could sway the balance between excitatory and inhibitory neurotransmission in the brain and lead to synaptic damage, and neuronal death via glutamate-mediated excitotoxicity.

Aim: To investigate the disruption of nerve-cell connections in Alzheimer’s disease through the assay of the trans-synaptic proteins Neuroligin 1 and Neuroligin 2 and to correlate them with the pathological severity of the disease. Methodology: Neuroligin 1 and Neuroligin 2 proteins were quantified in 3 brain areas that differ in susceptibility to neuronal loss in AD, in autopsy tissue from 15 control subjects and 15 patients with pathologically confirmed AD. Quantification was conducted by in-gel immunodetection against known concentrations of recombinant truncated Neuroligin1 and Neuroligin2 standards. Recombinant Neuroligin1 and Neuroligin2 were also analysed and quantified after trypsin digest by Mass Spectrometry.

Results: Area based analysis showed that Neuroligin1 and Neuroligin2 protein levels in occipital cortex and inferior temporal cortex did not differ between cases and controls. The level of Neuroligin1 in hippocampus was significantly lower in AD cases (20 ng/mg of total protein) than in sex-and age- matched controls (35 ng/mg of protein). Whereas, the Neuroligin2 level in hippocampus was significantly higher in AD cases (60 ng/mg of total protein) than controls (20 ng/mg of protein). Conclusion: Neuroligin1 is mainly associated with excitatory synapses, while neuroligin2 is associated with inhibitory synapses. The data suggested a shift in the balance between excitatory and inhibitory transmission in pathologically susceptible hippocampal tissues.

P02
Education and Training of Medical Professionals
Samia Ahmed Abdul-Rahman, Egypt

Abstract title: The Pioneer and Castle of Geriatric Educational Programs for Health Care Professionals (Egyptian Experience)
Ashour A, Hamza S and Abdul-Rahman SA
Ain Shams University – Cairo- Egypt

Objectives: To estimate the Egyptian experience in training and educating health care professionals in the field of Geriatric medicine.

Methods: Measure the different educational programs provided for health providers in the faculty of medicine Ain Shams University and other Egyptian Educational institutes and their suitability to the Egyptian community and other regional countries.

Results: The Egyptian experience regarding Geriatric started 25 years ago in Faculty of medicine Ain Shams University. It started in the form post graduate Master and Medical doctorate programs. Than Geriatric medicine become a separate course for the all undergraduate medical students. Several courses had been designed for training physicians from other specialties and other non-medical health care professionals (social workers, Psychologists, etc). Now all medical students are trained for primary health care services for elderly and workshops are designed for all faculty graduates for practical geriatric approach. Several post graduate programs rather than geriatrics are considering geriatrics within their program and courses specifications. The certificate of advanced experience in psychogeriatric is higher degree program for psychologists and geriatricians. Three other universities are now offering courses and programs for medical students and health care professionals. The curricula of all the programs are regularly updated. The number of trained health care professionals for elderly care is now increasing to suit the community needs.

Conclusion: Increasing number medical students having the required basic geriatric training for health care professionals. There is an established system for training all categories of health care providers on elderly health care.

P03
Aging Population in Iran: An Ever-increasing Concern in the Health Care System
Maryam Noroozian, Iran
M Noroozian (1) Tehran University of Medical Sciences, Iran), Ms. Shahraz Shafvia, Mr. Nima Khosravi.

Objectives: The aim of this study is to investigate the importance of demographic change in Iran during the last decades and its implication on health care system.

Methods: Using the data of census studies released by Statistical Center and the observational studies on elderly health care challenges in Iran

Results: Like all across Asia, the process of population aging in Iran is occurring much more rapidly than in Western countries. Comparing Iran’s population age pyramid in the past two decades illustrates that the structure of age pyramid is reversing as number of aged people has increased from 7.22% in 2006 to 8.20% in 2011.

Conclusion: It is a critical time to make changes to struggle with the burden of Dementia in the future through alteration in policy making, health system priorities, early detection of dementia and appropriate interventions, medical education and social awareness.

P04
Prevalence of Rheumatic Muscloskeletal Disorders Among Dementia Patients in a Rural Population of South India
Jamaluddeen Cheruvalappil, India

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1Registar MES Medical College Perinthalmanna Kerala India, 2Researcher, consultant psychiatrist Cochin Kerala, 3ARDSI Kerala.

Objectives: 1. To identify the prevalence of Rheumatic musculoskeletal disorders among dementia patients
2. To find out factors related to it
3. To improve the quality of life of the dementia patients

Methods: • Study design: cross sectional study • Study population: Patients who are diagnosed as a case of dementia in the specified rural area • Period of study: one year from June 1st 2012 to May 31st 2013 • Data collection: pretested semi structured validated COPCOPD questionnaire in Malayalam used

Results: Final analysis is being done

Conclusion: Will be produced