NUTRITION & DEMENTIA

A REVIEW OF AVAILABLE RESEARCH
AN INTRODUCTION

MIKE IDDON | COMPASS GROUP
AGENDA

Introductions

Dementia & Nutrition

Research review
- Evidence-based summary of nutritional factors and risk of dementia
- Clinical aspects of under-nutrition
- Best practice examples

Conclusions
COMPASS GROUP AND ALZHEIMER’S DISEASE INTERNATIONAL (ADI)

COMPASS GROUP

- Global market leader in providing food and support services to customers in the workplace, schools and colleges, hospitals, care homes and at leisure locations
- Employ more than 500,000 people in around 50 countries
- Serve 4 billion meals a year
- Work in more than 50,000 client locations
- In the UK work in both healthcare and the care home market

ALZHEIMER’S DISEASE INTERNATIONAL (ADI)

- ADI is the international federation of Alzheimer associations around the world
- Aim is to help establish and strengthen Alzheimer associations globally
- Vision is to raise global awareness about Alzheimer’s disease and all other causes of dementia
- Each member is the Alzheimer association in their country who support people with dementia and their families
INTRODUCTION

Aim is to investigate how the right nutrition may help make life better for people affected by dementia

**Professor Martin Prince** from the King’s College London Institute of Psychiatry - Global Observatory for Ageing & Dementia Care is leading the research team

ADI and Compass Group believe a focus on diet, nutrition and wellbeing is a positive approach to supporting people with dementia
PREVALENCE OF DEMENTIA ACROSS THE WORLD

ESTIMATED PREVALENCE OF DEMENTIA FOR PERSONS AGED 60 AND OVER, STANDARDIZED TO WESTERN EUROPE POPULATION BY GLOBAL BURDEN OF DISEASE REGION

SOURCE - WORLD HEALTH ORGANISATION 2012
IT IS ESTIMATED THAT 36 MILLION PEOPLE WORLDWIDE LIVE WITH DEMENTIA, WITH NUMBERS DOUBLING EVERY 20 YEARS, TO REACH 115 MILLION BY 2050

BACKGROUND - THE DISEASE

Under-nutrition is the commonest nutritional problem

70% HOSPITALISED OLDER PEOPLE
30% LIVING IN CARE HOMES
10% OLDER PEOPLE LIVING AT HOME

36 MILLION PEOPLE WORLDWIDE LIVE WITH DEMENTIA
THESE FIGURES DOUBLING EVERY 20 YEARS TO REACH 115 MILLION BY 2050

Older people are also at risk of deficiency in micronutrients (essential vitamins and minerals, needed in small quantities)
“Nutrition is relevant to dementia, influencing both our risk of developing dementia, and our chances of ‘living well with dementia’ if we develop the condition”

Professor Martin Prince & Matthew Prina, 2013
Nutrition and dementia
A review of available research: Introduction
The full report will be launched in January 2014 and will focus specifically on three key components:

1. Evidence-based summary of nutritional factors and risk of dementia
2. Clinical aspects, in particular focusing on under-nutrition in dementia patients and potential interventions
3. Examples of best practice, focusing on the residential/nursing home sector
NUTRITIONAL FACTORS AND RISK OF DEMENTIA

1 Evidence-based summary of nutritional factors and risk of dementia

- Improving nutrition across the life course could have a role in preventing/delaying onset of dementia.
- These processes may even start before birth (e.g., foetal undernutrition has been linked with increased risk of diabetes, obesity, and cardiovascular diseases in mid-life).
- There’s a large body of evidence suggesting that diabetes and hypertension (both linked with adiposity and nutrition) in mid-life increase the risk of developing dementia in later life.
- More research is required on the role of specific dietary deficiencies.
NUTRITIONAL FACTORS AND RISK OF DEMENTIA

1 Evidence-based summary of nutritional factors and risk of dementia

Regular intake of fish, fruits and vegetables and specific diets (e.g. Mediterranean diet) has been associated with a lower risk of developing dementia and lower conversion rate from mild cognitive impairment to dementia.

More research is required on the role of specific nutritional deficiencies (vitamin b12, anti-oxidants, omega-3, etc.). Most of the evidence is weak, with the exception of gross deficiencies in B12, which have been linked to dementia.
Some studies have assessed the potential effect of aversive feeding behaviours:
Nutritional factors and risk of dementia

Loss of weight that precedes the onset of dementia seems to accelerate in the 3-6 years prior the clinical onset of dementia.

There is, as yet no evidence to recommend the use of (micro) nutritional supplementation at any stage of ‘dementia’.

RCTs of ‘medical foods’ have reported mixed results with preliminary data showing some improvement in specific cognitive tasks but not in overall cognition, status or functioning.

Clinical aspects, in particular focusing on under-nutrition in dementia patients and potential interventions.

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**Incident dementia (Age Adjusted)**

<table>
<thead>
<tr>
<th>Body Mass Index (BMI) KG/M²</th>
<th>NO DEMENTIA</th>
<th>INCIDENT DEMENTIA (AGE ADJUSTED)</th>
</tr>
</thead>
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<td>1965-1968</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>1967-1970</td>
<td>22</td>
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<tr>
<td>1971-1974</td>
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<td>1991-1993</td>
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<td>1994-1996</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>1997-1999</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

Midlife Examinations Late-Life Examinations
Nutritional factors and risk of dementia

Under nutrition in people with dementia is a specific problem due to several challenges in maintaining a good diet.

It is important to highlight that people with dementia may have different nutritional requirements to other care home residents.

This has important implications for nutrition and interventions need to be specific to this group of individuals.

Different types of interventions, including training and education programs for caregivers, provision of feeding assistance, and mealtime environment or routine modification will be discussed in the full report.
The report will include examples of best care practice to improve nutrition in dementia patients.

These examples will be drawn from a variety of sources.

Some illustrations follow...
“The dietitians trained the nursing staff on how to correctly prepare and serve these items to ensure the residents receive appropriate diet (type and texture) and that it is completed in a safe way…Nursing staff was also educated about the different diet textures and shown how they can utilise the diet manual as a reference any time they have questions pertaining to diets. There have been many benefits observed from these changes. The residents are now able to receive food at their desired time and I have heard multiple comments from residents (and family members) reporting that they like the new menu and being able to eat when they want. Nursing staff have gained knowledge regarding differences in diets and now feel more comfortable dealing with the different diet types…”

Aldersgate Village, Mississippi, USA
“A Dementia and Dining programme is currently being developed for use in some aged care facilities to improve the nutrition of residents in the dementia units. The programme will include training for Caregivers and Catering staff to make them more aware of the physical and cognitive changes that occur through the stages of dementia and how this affects the residents nutrition and hydration requirements. A finger food menu is also being planned and one of the Chef’s has spent time developing the dietician’s suggested finger food menu into recipes and photos.”

Compass Healthcare, New Zealand
“Each month we hold a nutrition talk to discuss the monthly Superfood with our dementia residents. We include items to see, touch, and taste to help our residents draw out memories from their past, including taste memories. For example, this month was tomatoes. Our community has a garden that residents and staff can utilize. We were able to take our residents to see and pick different varieties of tomatoes and to talk about what types of gardens they used to grow. We then prepared a salsa for our snack. With the avocado Superfood, we brought avocados of different ripeness for the residents to feel. We then prepared guacamole together. One resident told us about the avocado plant he had grown.”

Emporia Manor, Kansas, USA
CONCLUSIONS

Aims for the ADI-Compass Group full research report are to access and critically review all available evidence regarding the importance of:

- Nutrition to onset and clinical progression of dementia
- The health and well-being of people living with dementia

Already clear more research is needed to clarify risk associations and inform preventive and treatment interventions.

Important gaps in the evidence base will be identified and highlighted as future research priorities.
IT’S THE RIGHT THING TO DO...