

**A SELECTION OF TEN CURRENT READINGS ON TOPICS RELATED TO DEMENTIA –
some available as free full-text and some requiring payment**

Selection of readings made by A/Prof Goh Lee Gan

READING 1 – Frontotemporal dementia

Cardarelli R, Kertesz A, Knebl JA. Frontotemporal dementia: a review for primary care physicians. Am Fam Physician. 2010 Dec 1;82(11):1372-7. Review. PubMed PMID: 21121521.

URL: <http://www.aafp.org/afp/2010/1201/p1372.pdf> (payment required)

Cardarelli R, Kertesz A, Knebl JA. University of North Texas Health Science Center, Fort Worth, TX 76107, USA.

ABSTRACT

Frontotemporal dementia (FTD) is one of the most common forms of dementia in persons younger than 65 years. Variants include behavioral variant FTD, semantic dementia, and progressive nonfluent aphasia. Behavioral and language manifestations are core features of FTD, and patients have relatively preserved memory, which differs from Alzheimer disease. Common behavioral features include loss of insight, social inappropriateness, and emotional blunting. Common language features are loss of comprehension and object knowledge (semantic dementia), and nonfluent and hesitant speech (progressive nonfluent aphasia). Neuroimaging (magnetic resonance imaging) usually demonstrates focal atrophy in addition to excluding other etiologies. A careful history and physical examination, and judicious use of magnetic resonance imaging, can help distinguish FTD from other common forms of dementia, including Alzheimer disease, dementia with Lewy bodies, and vascular dementia. Although no cure for FTD exists, symptom management with selective serotonin reuptake inhibitors, antipsychotics, and galantamine has been shown to be beneficial. Primary care physicians have a critical role in identifying patients with FTD and assembling an interdisciplinary team to care for patients with FTD, their families, and caregivers. PMID: 21121521 [PubMed - indexed for MEDLINE]

READING 2 – Vitamin B12 deficiency

Langan RC, Zawistoski KJ. Update on vitamin B12 deficiency. Am Fam Physician. 2011 Jun 15;83(12):1425-30. PubMed PMID: 21671542.

URL: <http://www.aafp.org/afp/2011/0615/p1425.pdf> (payment required)

Langan RC, Zawistoski KJ. St. Luke's Hospital, Bethlehem, PA, USA.

ABSTRACT

Vitamin B12 (cobalamin) deficiency is a common cause of megaloblastic anemia, a variety of neuropsychiatric symptoms, and elevated serum homocysteine levels, especially in older persons. There are a number of risk factors for vitamin B12 deficiency, including prolonged use of metformin and proton pump inhibitors. No major medical orga-

nizations, including the U.S. Preventive Services Task Force, have published guidelines on screening asymptomatic or low-risk adults for vitamin B12 deficiency, but high-risk patients, such as those with malabsorptive disorders, may warrant screening. The initial laboratory assessment of a patient with suspected vitamin B12 deficiency should include a complete blood count and a serum vitamin B12 level. Measurements of serum vitamin B12 may not reliably detect deficiency, and measurement of serum homocysteine and/or methylmalonic acid should be used to confirm deficiency in asymptomatic high-risk patients with low normal levels of vitamin B12. Oral administration of high-dose vitamin B12 (1 to 2 mg daily) is as effective as intramuscular administration in correcting the deficiency, regardless of etiology. Because crystalline formulations are better absorbed than naturally occurring vitamin B12, patients older than 50 years and strict vegetarians should consume foods fortified with vitamin B12 and vitamin B12 supplements, rather than attempting to get vitamin B12 strictly from dietary sources. Administration of vitamin B12 to patients with elevated serum homocysteine levels has not been shown to reduce cardiovascular outcomes in high-risk patients or alter the cognitive decline of patients with mild to moderate Alzheimer disease. PMID: 21671542 [PubMed - in process]

READING 3 – Treatment of Alzheimer disease

Winslow BT, Onysko MK, Stob CM, Hazlewood KA. Treatment of Alzheimer disease. Am Fam Physician. 2011 Jun 15;83(12):1403-12. PubMed PMID: 21671540.

URL: <http://www.aafp.org/afp/2011/0615/p1403.pdf> (payment required)

Winslow BT, Onysko MK, Stob CM, Hazlewood KA. Swedish Family Medicine Residency, Littleton, CO, USA.

ABSTRACT

Alzheimer disease is the most common form of dementia, affecting more than one-third of Americans older than 85 years. It is characterized by progressive memory loss and cognitive decline. Amyloid plaque accumulation, neurofibrillary tau tangles, and depletion of acetylcholine are among the pathologic manifestations of Alzheimer disease. Although there are no proven modalities for preventing Alzheimer disease, hypertension treatment, omega-3 fatty acid supplementation, physical activity, and cognitive engagement demonstrate modest potential. Acetylcholinesterase inhibitors are first-line medications for the treatment of Alzheimer disease, and are associated with mild improvements in cognitive function, behavior, and activities of daily living; however, the clinical relevance of these effects is unclear. The most common adverse effects of acetylcholinesterase inhibitors are nausea, vomiting, diarrhea, dizziness, confusion, and cardiac arrhythmias. Short-term use of the N-methyl-D-aspartate receptor antagonist memantine can modestly improve measures of cognition, behavior, and activities of daily living in patients with moderate to severe Alzheimer disease. Memantine can also be used in combination with acetylcholinesterase inhibitors. Memantine is generally well tolerated, but whether its benefits produce clinically meaningful improvement is controversial. Although N-methyl-D-aspartate receptor antagonists and acetylcholinesterase inhibitors can slow the progression of Alzheimer disease, no pharmacologic agents can reverse the progression. Atypical antipsychotics can improve some behavioral symptoms, but have been associated with increased mortality rates in older patients with dementia. There is conflicting evidence about the benefit of selegiline, testosterone, and ginkgo for the treatment of Alzheimer disease. There is no evidence supporting the beneficial effects of vitamin E, estrogen, or nonsteroidal anti-inflammatory drug therapy. PMID: 21671540 [PubMed - in process]

READING 4 – Early dementia – optimal management in general practice

Workman B, Dickson F, Green S. Early dementia--optimal management in general practice. Aust Fam Physician. 2010 Oct;39(10):722-6. PubMed PMID: 20890472.

URL: <http://www.racgp.org.au/afp/201010/201010workman.pdf> (free full text)

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ABSTRACT

BACKGROUND: The assessment and management of dementia is complex. General practitioners are often the first point of contact for people with dementia, and their families. General practitioners have a key role in providing quality primary care in terms of the identification, assessment, provision of information, referral and ongoing management.

OBJECTIVE: This article discusses the role of the GP in the diagnosis and management of people with dementia.

DISCUSSION: It is important GPs are aware of the importance of early detection of dementia. Dementia is a complex condition. It develops slowly and early signs of dementia are very subtle. Difficulty in detecting the transition between normal aging and the onset of dementia and the lack of a definitive diagnostic tool often precludes early diagnosis. Evidence based recommendations are available to assist GPs in the diagnosis and ongoing management of people with dementia.

PMID: 20890472 [PubMed - indexed for MEDLINE]

READING 5 – Finances in older patient with cognitive impairment

Widera E, Steenpass V, Marson D, Sudore R. Finances in the older patient with cognitive impairment: "He didn't want me to take over". JAMA. 2011 Feb 16;305(7):698-706. Review. PubMed PMID: 21325186.

URL: <http://jama.ama-assn.org/content/305/7/698.full.pdf+html> (free full text)

Widera E, Steenpass V, Marson D, Sudore R. VA Medical Center 181G, 4150 Clement St, San Francisco, CA 94121, USA. eric.widera@ucsf.edu

ABSTRACT

Financial capacity can be defined as the ability to independently manage one's financial affairs in a manner consistent with personal self-interest. Financial capacity is essential for an individual to function independently in society; however, Alzheimer disease and other progressive dementias eventually lead to a complete loss of financial capacity. Many patients with cognitive impairment and their families seek guidance from their primary care clinician for help with financial impairment, yet most clinicians do not understand their role or know how to help. We review the prevalence and impact of diminished financial capacity in older adults with cognitive impairment. We also articulate the role of the primary care clinician, which includes (1) educating older adult patients and their families about the need for advance financial planning; (2) recognizing signs of possible impaired financial capacity; (3) assessing financial impairments in cognitively impaired adults; (4) recommending interventions to help patients maintain financial independence; and (5) knowing when and to whom to make medical and legal referrals. Clearly delineating the clinician's role regarding identification of financial impairment could establish for patients and families effective financial protections and limit the economic, psychological, and legal hardships of financial incapacity on patients with dementia and their families. PMID: 21325186 [PubMed - indexed for MEDLINE]

READING 6 – Making decisions for people with dementia

Livingston G, Leavey G, Manela M, Livingston D, Rait G, Sampson E, Bavishi S, Shahriyarmolki K, Cooper C. Making decisions for people with dementia who lack capacity: qualitative study of family carers in UK. BMJ. 2010 Aug 18;341:c4184. doi: 10.1136/bmj.c4184. PubMed PMID: 20719843; PubMed Central PMCID: PMC2923693.

URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923693/pdf/bmj.c4184.pdf> (full free text)

Livingston G, Leavey G, Manela M, Livingston D, Rait G, Sampson E, Bavishi S, Shahriyarmolki K, Cooper C. Department of Mental Health Sciences, University College London, London W1W 7EJ. g.livingston@ucl.ac.uk

ABSTRACT

OBJECTIVE: To identify common difficult decisions made by family carers on behalf of people with dementia, and facilitators of and barriers to such decisions, in order to produce information for family carers about overcoming barriers. **DESIGN:** Qualitative study to delineate decision areas through focus groups and complexity of decision making in individual interviews.

SETTING: Community settings in London.

PARTICIPANTS: 43 family carers of people with dementia in focus groups and 46 carers who had already made such decisions in individual interviews.

RESULTS: Family carers identified five core problematic areas of decision making: accessing dementia related health and social services; care homes; legal-financial matters; non-dementia related health care; and making plans for the person with dementia if the carer became too ill to care for them. They highlighted the difficulties in making proxy decisions, especially against active

resistance, and their altered role of patient manager while still a family member. Families devised strategies to gain agreement in order to ensure that the person with dementia retained dignity.

CONCLUSIONS: The following strategies helped with implementation of decisions: introducing change slowly; organising legal changes for the carer as well as the patient; involving a professional to persuade the patient to accept services; and emphasising that services optimised, not impeded, independence. To access services, carers made patients' general practice appointments, accompanied them to the surgery, pointed out symptoms, gained permission to receive confidential information, asked for referral to specialist services, and used professionals' authority to gain patients' agreement. End of life decisions were particularly difficult. They were helped by knowledge of the person with dementia's previous views, clear prognostic information, and family support. Information sheets to help carers to overcome barriers to proxy decision making have been developed; their impact in practice has yet to be evaluated. PMCID: PMC2923693 PMID: 20719843 [PubMed - indexed for MEDLINE]

READING 7 – Caregiver care

Collins LG, Swartz K. Caregiver care. Am Fam Physician. 2011 Jun 1;83(11):1309-17. PubMed PMID: 21661713.

URL: <http://www.aafp.org/afp/2011/0601/p1309.pdf> (payment required)

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ABSTRACT

In 2009, nearly 66 million Americans (three in 10 U.S. households) reported at least one person providing unpaid care as a family caregiver. More adults with chronic conditions and disabilities are living at home than ever before, and family caregivers have an even higher level of responsibility. Caring for loved ones is associated with several benefits, including personal fulfillment. However, caregiving is also associated with physical, psychological, and financial burdens. Primary care physicians can aid in the identification, support, and treatment of caregivers by offering caregiver assessments-interviews directed at identifying high levels of burden-as soon as caregivers are identified. Repeat assessments may be considered when there is a change in the status of caregiver or care recipient. Caregivers should be directed to appropriate resources for support, including national caregiving organizations, local area agencies on aging, Web sites, and respite care. Psychoeducational, skills-training, and therapeutic counseling interventions for caregivers of patients with chronic conditions such as dementia, cancer, stroke, and heart failure have shown small to moderate success in decreasing caregiver burden and increasing caregiver quality of life. Further research is needed to further identify strategies to offset caregiver stress, depression, and poor health outcomes. Additional support and anticipatory guidance for the care recipient and caregiver are particularly helpful during care transitions and at the care recipient's end of life. PMID: 21661713 [PubMed - indexed for MEDLINE]

READING 8 – Building capacity for dementia care

Lee L, Kasperski MJ, Weston WW. Building capacity for dementia care: training program to develop primary care memory clinics. Can Fam Physician. 2011 Jul;57(7):e249-52. PubMed PMID: 21753083; PubMed Central PMCID: PMC3135463.

URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3135463/pdf/057e249.pdf> (free full text)

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ABSTRACT

PROBLEM BEING ADDRESSED: Currently, dementia care provided by family physicians is suboptimal and access to specialist resources is limited. With the aging population, there is a need for system-wide, programmatic interventions to improve the diagnosis and management of patients with memory difficulties. The development of primary care memory clinics addresses this need.

OBJECTIVE: The Memory Clinic Training Program aims to develop highly functioning interprofessional memory clinics that assist family physicians in providing improved care for patients with dementia and other forms of cognitive impairment.

PROGRAM DESCRIPTION: The interprofessional training program consists of a 2-day case-based workshop, 1 day of observership and clinical training at the Centre for Family Medicine Memory Clinic, and 2 days of on-site mentorship at each newly formed memory clinic.

CONCLUSION: The Memory Clinic Training Program is an accredited, comprehensive program designed to assist family practice groups with developing primary care memory clinics. These clinics aim to transform the current limited practice capability of individual family physicians into a systematic, comprehensive, interprofessional health care service that improves capacity and quality of primary care for patients with cognitive impairment and dementia.

PMCID: PMC3135463

PMID: 21753083 [PubMed - in process]

READING 9 – Preventing post stroke cognitive impairment

Ankolekar S, Geeganage C, Anderton P, Hogg C, Bath PM. Clinical trials for preventing post stroke cognitive impairment. J Neurol Sci. 2010 Dec 15;299(1-2):168-74. Epub 2010 Sep 19. PubMed PMID: 20855090.

URL: <http://www.sciencedirect.com/science/article/pii/S0022510X10004193> (payment required)

Ankolekar S, Geeganage C, Anderton P, Hogg C, Bath PM. Stroke Trials Unit, University of Nottingham, Nottingham NG5 1PB, UK.

ABSTRACT

Post stroke dementia (PSD) develops in up to 40% of patients and often co-exists with Alzheimer's disease in the elderly. Unsurprisingly, the combination of stroke and dementia is associated with considerable morbidity and mortality, and is devastating to patients and carers. Limited trial evidence suggests that lowering high blood pressure reduces the development of cognitive decline, vascular dementia and PSD, although whether this relates to the magnitude of BP reduction or specific drug classes remains unclear. Biological plausibility and/or existing studies suggest that other types of drug treatments might also be effective, including choline esterase inhibitors, lipid lowering agents, antiplatelet agents, and selective serotonin reuptake inhibitors. Preventing cognitive decline and dementia post stroke is critical and large definitive trials are now needed PMID: 20855090 [PubMed - indexed for MEDLINE]

READING 10 – Reducing incidence of dementia

Ritchie K, Carrière I, Ritchie CW, Berr C, Artero S, Ancelin ML. Designing prevention programmes to reduce incidence of dementia: prospective cohort study of modifiable risk factors. *BMJ*. 2010 Aug 5;341:c3885. doi: 10.1136/bmj.c3885. PubMed PMID: 20688841; PubMed Central PMCID: PMC2917002.

URL: <http://www.ncbi.nlm.nih.gov/libproxy1.nus.edu.sg/pmc/articles/PMC2917002/pdf/bmj.c3885.pdf> (free full text)

Ritchie K, Carrière I, Ritchie CW, Berr C, Artero S, Ancelin ML. Inserm, U888 Nervous System Pathologies: Epidemiological and Clinical Research, La Colombière Hospital, 34093 Montpellier Cedex 5, France.karen.ritchie@inserm.fr

ABSTRACT

OBJECTIVE: To estimate the percentage reduction in incidence of dementia that would be obtained if specific risk factors were eliminated.

DESIGN: Prospective seven year cohort study.

SETTING: General population, Montpellier, France.

PARTICIPANTS: 1433 people aged over 65 with a mean baseline age of 72.5 years (SD 5.1).

MAIN OUTCOME MEASURES: Diagnosis of mild cognitive impairment or dementia established by a standardised neurological examination.

RESULTS: Cox models were constructed to derive hazard ratios and determine confounding and interaction effects for potentially modifiable risk factors for dementia. Mean percentage population attributable fractions were calculated with 95% confidence intervals derived from bootstrapping for seven year incidence of mild cognitive impairment or dementia. The final model retained crystallized intelligence (population attributable fraction 18.11%, 95% confidence interval 10.91% to 25.42%), depression (10.31%, 3.66% to 17.17%), fruit and vegetable consumption (6.46%, 0.15% to 13.06%), diabetes (4.88%, 1.87% to 7.98%), and apolipoprotein E epsilon4 allele (7.11%, 2.44% to 11.98%).

CONCLUSIONS: Increasing crystallised intelligence and fruit and vegetable consumption and eliminating depression and diabetes are likely to have the biggest impact on reducing the incidence of dementia, outweighing even the effect of removing the principal known genetic risk factor. Although causal relations cannot be concluded with certainty, the study suggests priorities that may inform public health programmes. PMCID: PMC2917002 PMID: 20688841 [PubMed - indexed for MEDLINE]
