Treatment of Dementia

The general aim is to *prevent* or *slow the progress* of the disorder
The most step is to identify the ***reversible causes***:
- B-12/folate and other vitamin deficiencies
- Subdural haematoma
- Major depression
- Hypothyroidism
- Hypercalaemia
- Chronic drug intoxication

Prevention of neurodegeneration

Oestrogen replacement therapy (women only)- not for the over 65s, may not have a benefit, increased incidence of CAD/CVA/Breast Ca/Pes
Vitamin E/Selegiline/Vitamin C – anti oxidant effects
NSAIDS – may provide benefit by platelet inhibition and improving blood flow, but has major risks of GI bleeds etc
Gingko biloba – may have neuroprotective effect but risks of bleeding and interacting with other medications
Statins – may act by affecting microcirculation by decreasing cholesterol or other anti-inflammatory effects

Intellectual Decline (the characteristic feature of dementia)

One of the prominent pathophysiological changes is a loss of cholinergic neurons (especially in the basal forebrain). Centrally acting acetylcholinesterase inhibitors have been developed that are modestly effective in enhancing intellectual skills such as memory in patients with AD

Central Acetylcholinesterase Inhibitors
Start treatment *early* to maximize longer-term benefits and may also improve secondary symptoms of dementia such as behavior/psychiatric
Tacrine – high incidence of side effects at therapeutic dose
Donepizil – less side effects
Rivastigmine and *Galantamine* - newer
Try alternative drugs if not working. Do not combine
Side effects - nausea, vomiting, diarrhea, and anorexia. More commonly in the initiation phase of the drug rather than during maintenance.

***NMDA* (N-methyl-D-aspartate) Antagonist** - *Memantine*
Overexcitement of NMDA receptors by abnormally high brain levels of glutamate is thought to be responsible for decreased nerve cell function and, eventually, nerve cell death.

Additionally, some studies suggest that improvement in primary and secondary symptoms in Alzheimer disease may be greater when memantine is used in combination with a cholinesterase inhibitor.
Side effects - somnolence, dizziness, headache, and constipation

Behavioural Disorders

Psychosis
Typically involves paranoid delusions and formed visual hallucinations.

- Paranoid themes involve infidelity and money/theft.
- These sentiments can interfere with a well-intentioned caregiver and may make it impractical for the patient to remain at home.
- Respond to neuroleptic management in most patients.

Typical neuroleptics
Haloperidol and *risperidone*
Extrapyramidal side effects and parkinsonism

Atypical neuroleptics
Quetiapine and *Olanzapine*
Particularily useful if dementia has features of parkinsonism

Acute psychotic crises
Haloperidol 5-10mg

Anxiety
Benzodiazepines can cause paradoxical agitation
Buspirone – better tolerated
Trazadone – if severe symptoms

Depression
TCAs should be avoided - high incidence of increased confusion and daytime sedation
SSRIs best – Paroxetine and Sertraline
These medications are sometimes helpful even in nondepressed patients with dementia who have significant fatigue or apathy

Sleep Disturbances
Important for health of patient and caregivers
Short-acting sedative-hypnotic medications are preferred over long-acting agents to facilitate sleep onset and to avoid daytime somnolence
i.e. Zopiclone

Associated Sypmtoms

Incontinence, Parkinsonism, Pain and Dysphagia

Abrupt decline

Look for underlying cause
Infection
Pain
Medication
Change to Sleep-wake cyclle