DEMENTIA DRUGS SUMMARY CARD

(summary of drugs used in the treatment of dementia

	AcetylCholinEsterase Inhibitors (AChEIs)			NMDA receptor antagonist
	Donepezil	**Galantamine**	**Rivastigmine**	**Memantine**
Dose and formulation	5mg once daily in the evening, **at bedtime**. Increased if necessary after one month to 10mg once daily. Oro-dispersible SF tablets available (cost significantly more) Standard tablets can be crushed and mixed with water for administration	Standard release tablet and liquid 4mg twice daily, preferably with/after meals. Increase, at monthly intervals, to maximum tolerated dose of up to 12mg twice daily. Modified Release (MR) capsules 8mg once daily. Increase, at monthly intervals, to maximum tolerated dose of up to 24mg once daily. Standard tablets can be crushed and mixed with water for administration	Capsule (£) and oral solution SF (£££) 1.5mg twice daily with meals. Increase dose to max tolerated up to 6mg twice daily. Minimum of 2 weeks between dose increases. Patch (cost significantly more) 4.6mg/24hrs increase to 9.5mg/24hrs after a minimum of 4 weeks. **After a further 6 months**, may be increased to 13.3mg/24 hours if clinically indicated If treatment is interrupted for more than three days, re-titrate from start to reduce the possibility of side-effects Capsules can be opened, and the contents dispersed in water for administration	Tablet/orodispersible tablet & oral sol SF 5mg once daily, increased by 5mg at weekly intervals, until reaching recommended maintenance dose of 20mg once daily. Oro-dispersible SF tablets available (cost significantly more) Standard tablets can be crushed and mixed with water for administration
CCG preferred	**Generic tablets**	**Gatalin XL capsules**	**Generic capsules**	**Generic tablets**
Cautions	• Sino-atrial or AV node block, or sick sinus syndrome • Severe asthma • Concomitant βeta-blocker therapy • Urinary symptoms (avoid use of galantamine) • People at increased risk of peptic ulcers (those with history of ulcer disease or on concomitant NSAIDs, aspirin and/or SSRI) • Chronic obstructive pulmonary disease or active pulmonary infections • Epilepsy • CVD • May exacerbate/induce extrapyramidal symptoms			• History of convulsions, epilepsy • Patients with recent MI, uncontrolled hypertension or uncompensated congestive heart failure were excluded from the clinical trials. These patients should be closely supervised • Patients who have had/plan drastic dietary change e.g. normal to vegetarian increases urine pH reducing memantine elimination

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<table>
<tr><th></th><th>Donepezil</th><th>Galantamine</th><th>Rivastigmine</th><th>Memantine</th></tr>
<tr><td>Contra-Indications</td><td>Known sensitivity to piperidine derivatives
e.g. fentanyl, haloperidol, methylphenidate, paroxetine, risperidone (check via BNF)</td><td>• Severe hepatic/renal impairment or those who have both significant renal and hepatic dysfunction.
• Urinary retention or history of prostatic condition.</td><td>• Known hypersensitivity to carbamate derivatives
• Severe liver impairment
• Previous history of application site reactions suggestive of allergic contact dermatitis with rivastigmine patch</td><td>Patients with rare hereditary problems of fructose intolerance should not take oral solution (contains sorbitol).</td></tr>
<tr><td></td><td colspan="2">Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption</td><td></td><td></td></tr>
<tr><td>Side-Effects</td><td colspan="3">Two practically important groups of adverse effects:
1. GI – common S/Es include abdominal pain, nausea, vomiting, diarrhoea, anorexia, weight loss
2. Cardiac (subside after 2 weeks, taken at bedtime to make less noticeable)
• heart block (sino-atrial block, AV block) – this is rare but potentially serious and easily missed
• bradycardia – if this occurs, carry out an ECG. If symptoms of collapse or dizzy spells and PR interval >200ms, then stop AChEI (follow pulse check appendix)</td><td>Appears to be well tolerated in practice.

Commonly experienced: constipation, hypertension and dizziness, headache, drowsiness</td></tr>
<tr><td>Clinically important drug interaction</td><td colspan="3">• May interact (antagonism of effects) with medicines that have anticholinergic activity e.g. oxybutynin, antipsychotics and tricyclic’s
• Potential for synergistic activity with medicines such as succinylcholine (suxamethonium) and other neuromuscular blocking agents, cholinergic agonists or βeta-blocking agents that have effects on cardiac conduction.
• Potential for additive effects with other drugs that share the same side effects (e.g. βeta blockers and bradycardia, SSRIs and anorexia)</td><td>• May interact with warfarin and increase INR so close monitoring advised
• Effect of levodopa or anticholinergics may be enhanced and doses may need to be adjusted</td></tr>
<tr><td></td><td colspan="2">• Metabolised via CYP3A4 and CYP2D6 pathways in the liver. Inhibitors of these pathways (e.g. erythromycin, clarithromycin, ketoconazole, fluvoxamine, fluoxetine, paroxetine) may increase ↑ drug levels and patients may experience increased side effects (dose reduction may be required)
• Enzyme inducers (e.g. rifampicin, phenytoin, carbamazepine & alcohol) may decrease ↓ drug levels (care should be taken with concurrent prescribing)</td><td></td><td>• Effects of antipsychotics may be reduced by memantine
• Increased risk of CNS toxicity when concomitant use of NMDA antagonists (amantadine, ketamine & dextromethorphan) and should be avoided</td></tr>
<tr><td>Renal Impairment</td><td>Not affected</td><td>Contra-indicated if creatinine clearance less than 9 mL/minute</td><td>Titrate according to individual tolerability to S/Es</td><td>Severe
(creatinine clearance 5–29 ml/min)
10 mg max daily dose</td></tr>
</table>

REFERENCES:
BNF via https://bnf.nice.org.uk/treatment-summaries/dementia/ , NEWT guidelines for administration of medication to patients swallowing difficulties via https://www.newtguidelines.com/ , NICE TA217 Treatment of Alzheimer's disease via https://www.nice.org.uk/guidance/ta217 , RDaSH Dementia Formulary Guidance via https://www.rdash.nhs.uk/wp-content/uploads/2014/04/Dementia.pdf , SPC via https://www.medicines.org.uk/emc/