NHS Greater Glasgow & Clyde
Mental Health Services
Prescribing Management Group

Guidance for Physical Health Monitoring of Cognitive Enhancers

It is recommended that all patients commenced on a cognitive enhancer (donepezil, rivastigmine, galantamine or memantine) should initially have basic monitoring of physical health parameters carried out by secondary care services.

Although often well tolerated, these medications can have significant side effects and physical health monitoring is required to mitigate some risks (e.g. bradycardia and weight loss common side effects with acetylcholinesterase inhibitors, hypertension common side effect with memantine).

It is recommended the following measures are carried out as a minimum (although some services may wish to carry out additional monitoring):

Acetylcholinesterase inhibitors:

Before treatment, inform patient and carer of potential adverse effects. Provide Patient Information Leaflet when possible, available via choice and medication website.

In addition to the table below, other physical health checks as felt to be clinically indicated – e.g. physical examination, renal function should be carried out.

	Blood pressure/Pulse	Weight	Adverse effects**	ECG***
Baseline (at initiation of medication)	✔	✔ **e.g. via MUST**		**only if indicated**
1 week after starting treatment* & after any dose increase	✔		✔	
Before dose increase	✔	✔ **if clinically indicated**	✔	
4 weeks after stabilised on maximum tolerated dose	✔	✔	✔	

*Keep in mind that it may take time for the GP to issue the prescription. This monitoring would start 1 week after the first dose is taken.

**See summary table below and appendix 1.

***Consider cardiac status during workup (refer galantamine blog & Medicines Update Extra bulletin for risk factors associated with QTc prolongation). If cardiac risk identified obtain U&Es and ECG at baseline and once stable therapeutic dose is established

No routine monitoring is required unless felt to be clinically indicated. ECGs should only be carried out when clinically appropriate, for example if cardiac symptoms emerge or a patient is started on medication known to cause QTc prolongation

Memantine

The guidance below applies when memantine is used as a single agent or to augment treatment with a cholinesterase inhibitor.

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Before treatment, inform patient and carer of potential adverse effects. Provide Patient Information Leaflet when possible, available via choice and medication website.

In addition to the table below, other physical health checks as felt to be clinically indicated – e.g. ECG, physical examination, renal function should be carried out.

	Blood pressure/Pulse	Adverse effects**
Baseline (at initiation of medication)	✔	
7 days after starting treatment*	✔	✔
14 days after starting treatment*	✔	✔
After dose titration completed*	✔	✔
4 weeks after stabilised on maximum tolerated dose	✔	✔

*If slower dose titration indicated adjust physical monitoring as appropriate.

**See summary table below and appendix 2.

No further routine monitoring is required unless felt to be clinically indicated. e.g. repeat of renal function

Cognitive enhancer summary

Medication	Licensed Indication	Oral Dose (other doses indicated for patches)	Common adverse effects (See SPC and BNF for full details)
Donepezil	Mild to moderately severe Alzheimer's dementia.	Start at 5mg daily at night. After one month can be increased to 10mg once daily.	Adverse effects include GI disturbances (nausea, vomiting and diarrhoea), reduced appetite and weight loss, bradycardia dizziness and syncope, headache, tiredness and fatigue, agitation and anxiety, urinary incontinence, sleep disturbance, muscle cramps, seizures.
Rivastigmine oral	Mild to moderately severe Alzheimer's dementia / Mild to moderately severe dementia in idiopathic Parkinson's disease. Dementia with Lewy Bodies	Start at 1.5mg twice daily with morning and evening meals. Increase dose by 1.5mg twice daily at a minimum of two weekly intervals, if tolerated, to maximum of 6mg twice a day. Effective dose is 3 to 6 mg twice a day; to achieve maximum therapeutic benefit patients should be maintained on their highest well-tolerated dose.	As above

Rivastigmine transdermal patch	Mild to moderately severe Alzheimer's dementia / Mild to moderately severe dementia in idiopathic Parkinson's disease. Dementia with Lewy Bodies	Started with 4.6mg/24h. After a minimum of four weeks of treatment and if well tolerated the dose should be increased to 9.5mg/24h, this is the daily recommended effective dose, which should be continued for as long as the patient continues to demonstrate therapeutic benefit. If well tolerated and only after a minimum of six months of treatment at 9.5mg/24h, the treating physician may consider increasing the dose to 13.3mg/24h in patients who have demonstrated a meaningful cognitive deterioration and/or functional decline	Transdermal administration (patch) is less likely to cause side effects although may cause skin reaction/rash. Provide instruction to ensure correct use of patches to reduce risks e.g. skin rash, risk of multiple patch application
Galantamine – use modified release preparation	Mild to moderately severe Alzheimer's dementia.	Starting dose 8mg once daily in the morning with food, increased to 16mg after 4 weeks (minimum effective dose) May be increased to 24mg daily after 4 weeks if tolerated.	As Above Rarely serious skin rash*
Memantine	Moderate to severe Alzheimer's disease.	5mg daily for 7 days, then 10mg daily for 7 days, then 15mg daily for 7 days then to 20mg daily. Doses may be split if clinically appropriate	Dizziness, headache, constipation, somnolence, bradycardia and hypertension, heart failure, venous thromboembolism and rarely seizures

*If skin reaction occurs stop immediately.

If adverse effects emerge consider reducing to previously tolerated lower dose as clinically indicated or if severe discontinue treatment or consider an alternative preparation e.g. rivastigmine patch.

Audit Criteria

Criteria	Standard	Exceptions
Patient information leaflet provided	100%	
Baseline physical health checks completed	100%	ECG only required for those with cardiac risk identified.
Further physical health checks completed at recommended intervals	100%	

Cognitive enhancer SLWG, November 2022

Appendix 1- Side Effect Checklist for donepezil, rivastigmine and galantamine

Patient Name			**CHI Number**				
Medication	**Donepezil** ☐	**Rivastigmine Capsules** ☐	**Rivastigmine Patches** ☐		**Galantamine** ☐		
Assessment Date			**Name of Assessor**				
Blood Pressure			**Pulse**				
Over the past week have you experienced any of the following, and if so, to what extent?			**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
1.	**I have been nauseous or vomited**						
2.	**I have had diarrhoea**						
3.	**I have had decreased appetite**						
4.	**I have felt dizzy or unsteady on my feet**						
5.	**I have fainted/lost consciousness**						
6.	**I have felt my muscles cramping**						
7.	**I have felt tired or fatigued**						
8.	**I have had a headache**						
9.	**I have not slept as well as normal**						
10.	**I have felt more anxious or agitated**						
11.	**I have passed urine when I didn't want to**						
12.	**I have had uncontrollable movements of my face or body**						
13.	**I have developed a rash or skin problem**						
Only ask the following questions to those prescribed rivastigmine patches			**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
14.	**I have noticed a rash where my patch was applied**						
15.	**Please provide a description**						

Appendix 2- Side Effect Checklist for memantine

Patient Name		**CHI Number**				
Assessment Date		**Name of Assessor**				
Blood Pressure		**Pulse**				
Over the past week have you experienced any of the following, and if so, to what extent?		**Never**	**Mild**	**Moderate**	**Severe**	**Tick if Distressing**
1.	**I have felt more tired or fatigued**					
2.	**I have felt dizzy or unsteady on my feet**					
3.	**I have fainted/lost consciousness**					
4.	**I have had a headache**					
5.	**I have had problems opening my bowels (constipation)**					
6.	**I have felt confused/more confused**					
7.	**I have had uncontrollable movements of my face or body**					
8.	**I have been short of breath***					
9.	**I have noticed swelling in one of my legs***					
10.	**I have had unexplained chest pain***					
***If any of the following have occurred, consider seeking urgent medical assessment**						