

4. Central Nervous System

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








[For cost information please go to the most recent cost comparison charts](#)

Key




	Red drug (hospital only) see GMMMG RAG list
	Amber drug (shared care) see GMMMG RAG list
	Green drug (drugs that may be initiated in primary care, only used with drugs where there has been some debate as to whether they should be initially prescribed by GPs) see GMMMG RAG list
	If a medicine is unlicensed this should be highlighted in the template as follows Drug name U
	Not Recommended
	Over the Counter
Order of Drug Choice	Where there is no preferred 1 st line agent provided, the drug choice appears in alphabetical order
	Drugs that are not routinely prescribed are not included in the formulary however if a specialist recommends a drug and it is listed as:  following specialist advice' within the RAG list then the patient can be prescribed that treatment.

BNF chapter	4	Central Nervous System
Section	4.1	Hypnotics and Anxiolytics
Subsection	4.1.1	Hypnotics
	<p>NICE TA77: Insomnia - newer hypnotic drugs</p> <p>NTS recommendation: Melatonin for primary insomnia in adults >55</p> <p>NTS recommendation: Sodium oxybate for the treatment of cataplexy in adults with narcolepsy</p>	
First choice	Zopiclone tablets: 3.75mg, 7.5mg	For short term use, licensed for max of 28 days.
Alternatives	Zolpidem tablets: 5mg, 10mg	For short term use, licensed for max of 28 days.
	Temazepam tablets: 10mg oral solution 10mg/5ml	MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015
Subsection	4.1.2	Anxiolytics
	Benzodiazepines are indicated for short-term relief of severe or disabling anxiety only	
	NICE CG113: Generalised anxiety disorder and panic disorder in adults	
First choice	Diazepam tablets: 2mg, 5mg, 10mg oral solution: 2mg/5ml	MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015

BNF chapter	4 Central Nervous System
Section	4.2 Drugs used in psychoses and related disorders
	NICE CG178: Psychosis and schizophrenia in adults NICE CG185: Bipolar disorder GM Shared Care Guideline: Oral second generation (atypical) antipsychotics for adults
Subsection	4.2.1 Antipsychotic drugs
First choice	<p>Aripiprazole tablets: 5mg, 10mg, 15mg</p> <p>A for licensed indications and also unlicensed when recommended by NICE R Use in dementia U (For new patients only). Check local commissioning arrangements NICE TA213: Aripiprazole for the treatment of schizophrenia in people aged 15-17</p>
	<p>Haloperidol tablets: 500microgram, 1.5mg, 5mg, 10mg, 20mg oral solution: 5mg/5ml, 10mg/5ml</p>
	<p>Olanzapine tablets: 2.5mg, 5mg, 7.5mg, 10mg, 15mg, 20mg orodispersible tablets: 5mg, 10mg, 15mg, 20mg</p> <p>A for licensed indications and also unlicensed when recommended by NICE R Use in dementia U (For new patients only). Check local commissioning arrangements</p>
	<p>Quetiapine tablets: 25mg, 100mg, 150mg, 200mg, 300mg</p> <p>A for licensed indications and also unlicensed when recommended by NICE R Use in dementia U (For new patients only). Check local commissioning arrangements</p>
	<p>Risperidone tablets: 500microgram, 1mg, 2mg, 3mg, 4mg, 6mg orodispersible tablets: 500microgram, 1mg, 2mg, 3mg, 4mg oral solution: 1mg/1ml</p> <p>A for licensed indications and also unlicensed when recommended by NICE R Use in dementia (For new patients only). Check local commissioning arrangements MHRA (2013): Risperidone and paliperidone: risk of floppy iris syndrome</p>




Alternatives	Amisulpride tablets: 50mg, 100mg, 200mg, 400mg oral solution: 100mg/ml	 for licensed indications and also unlicensed when recommended by NICE  Use in dementia  (For new patients only). Check local commissioning arrangements
	Aripiprazole tablets: 30mg orodispersible tablets: 10mg, 15mg	 for licensed indications and also unlicensed when recommended by NICE  Use in dementia  (For new patients only). Check local commissioning arrangements NICE TA213: Aripiprazole for the treatment of schizophrenia in people aged 15-17
	Chlorpromazine tablets: 25mg, 50mg, 100mg	
	Clozapine tablets: 25mg, 50mg, 100mg, 200mg	 MHRA DSU: Clozapine: reminder of potentially fatal risk of intestinal obstruction, faecal impaction, and paralytic ileus, Oct 2017
	Levomepromazine tablets: 25mg (do not prescribe 6mg tablets)	 for palliative care use only Specialist initiation only
	Quetiapine MR tablets: 50mg, 150mg, 200mg, 300mg, 400mg	MR formulation is restricted for use as adjunct in depression only  Licensed indications and also unlicensed indications as recommended by NICE  Use in dementia  (For new patients only). Check local commissioning arrangements



<p>Grey drugs</p> <p>Items which are listed as Grey are deemed not suitable for routine prescribing but may be suitable for a defined patient population</p>	<p>Lurasidone</p> <p>tablets: 18.5mg, 37mg, 74mg</p> <p>Lurasidone should be used only for the treatment of schizophrenia in adults aged 18 years and older who require antipsychotic treatment, who have previously had a trial of but not responded to aripiprazole, and who fulfil one of the following criteria:</p> <ul style="list-style-type: none"> • Patient gained weight on other antipsychotics and there is a need for the BMI to move towards the normal range • Patients for whom there is a need to avoid weight gain and metabolic adverse effects, e.g. patients with diabetes, cardiovascular disease • Patients with a prolonged QTc interval 	<p>A</p> <p>Criterion 2 (see RAG list)</p>
<p>Do Not Prescribe</p>	<p>Cariprazine</p> <p>capsules</p>	<p>Criterion 2 (see RAG list)</p>
<p>Subsection</p>	<p>4.2.2 Antipsychotic depot injections</p> <p>A Only for those patients who are stable and if SCP available; or if under the care of a community psychiatric nurse. In some localities there may be commissioning arrangements in place to permit step down.</p>	
<p>First choice</p>	<p>Flupentixol decanoate</p> <p>injection: 20mg/1ml</p> <p>concentrated injection 100mg/1ml</p> <p>low volume injection 200mg /1ml</p>	<p>A See above</p>
	<p>Fluphenazine decanoate</p> <p>injection: 25mg/ml: 0.5 ml, 1 ml, 2 ml ampoules</p> <p>100mg/ml: 0.5 ml & 1 ml ampoules</p>	<p>A See above</p> <p>Manufacture of this product will cease from mid-2018; and it is expected that it will no longer be available in the UK from end of 2018.</p>
	<p>Zuclopenthixol decanoate</p> <p>injection: 200mg/1ml, 500mg/1ml</p>	<p>A See above</p> <p>MHRA DSU: Drug name confusion, April 2013</p>
<p>Alternatives</p>	<p>Risperidone</p> <p>injection vial(Risperdal consta®):</p> <p>25mg, 37.5mg, 50mg (powder for reconstitution)</p>	<p>A See above</p> <p>MHRA DSU: Drug name confusion, April 2013</p> <p>MHRA DSU: Risperidone and paliperidone: risk of floppy iris syndrome, Nov 2013</p>

	<p>Haloperidol decanoate injection: 50mg/1ml, 100mg/1ml</p>	<p> See above</p>
	<p>Aripiprazole prolonged release injection (Abilify Maintena®) 400mg vial (with solvent)</p>	<p> See above NTS recommendation: Aripiprazole prolonged release injection (Abilify Maintena) for the treatment of schizophrenia</p>
	<p>Paliperidone palmitate Prolonged-release suspension for injection 50mg, 100mg, 150mg (1 month depot) Prolonged-release suspension for injection 175mg, 263mg, 350mg, 525mg (3 month depot)</p>	<p> see above NTS recommendation: Paliperidone depot injection for schizophrenia</p>

Subsection	4.2.3 Drugs for mania and hypomania	
	Anti-manic drugs should be initiated by specialist mental health services	
	NTS recommendation: Asenapine for manic episodes in adult patients with BPD	
First choice		
Lithium		
	Preparations vary widely in bioavailability therefore prescribe by brand	
	<p>Lithium carbonate MR tablets: 200mg, 400mg (Priadel®)</p> <p>Lithium citrate oral solution: 520mg/5ml (Priadel®)</p>	<p>A</p> <p>NPSA (2009) Safer lithium prescribing</p>
Alternatives		
Benzodiazepines		
May be helpful in initial stages of treatment for behavioural disturbances or agitation		See 4.1.2
Antipsychotic drugs		
Antipsychotic drugs are useful in acute episodes of mania and hypomania.		See 4.2.1
First choice	<p>Olanzapine tablets: 2.5mg, 5mg, 7.5mg, 10mg, 15mg, 20mg orodispersible tablets: 5mg, 10mg, 15mg, 20mg</p> <p>Quetiapine tablets: 50mg, 150mg, 200mg, 300mg, 400mg</p> <p>Risperidone tablets: 500microgram, 1mg, 2mg, 3mg, 4mg, 6mg orodispersible tablets: 500microgram, 1mg, 2mg, 3mg, 4mg oral solution: 1mg/1ml</p>	<p>A Licensed indications and also unlicensed indications as recommended by NICE</p> <p>A Licensed indications and also unlicensed indications as recommended by NICE</p> <p>A Licensed indications and also unlicensed indications as recommended by NICE</p>
Alternatives	<p>Aripiprazole tablets: 5mg, 10mg, 15mg, 30mg orodispersible tablets: 10mg, 15mg oral solution 1mg/1ml</p>	<p>A Licensed indications and also unlicensed indications as recommended by NICE</p> <p>NICE TA292: Aripiprazole for treating moderate to severe manic episodes in adolescents with bipolar disorder</p>

	<p>Haloperidol tablets: 500microgram, 1.5mg, 5mg, 10mg, 20mg oral solution: 5mg/5ml, 10mg/ 5ml</p>	
	<p>Quetiapine modified release tablets: 50mg, 200mg, 300mg, 400mg</p>	<p>A Licensed indications and also unlicensed indications as recommended by NICE</p>
<p>Carbamazepine</p>		
<p>May be used under specialist supervision for the prophylaxis of bipolar disorder in patients unresponsive to a combination of other prophylactic drugs</p>	<p>Gn Following specialist initiation See 4.8.1</p>	
<p>Valproate</p>		
<p>Sodium valproate is used for the treatment of manic episodes associated with bipolar disorder.</p>		
	<p>Sodium Valproate (Episenta®) capsules 150mg, 300mg</p>	<p>Gn Following specialist initiation See 4.8.1 MHRA DSU: Valproate medicines (Epilim▼, Depakote▼): contraindicated in women and girls of childbearing potential unless conditions of Pregnancy Prevention Programme are met (April 2018) MHRA DSU: Valproate medicines (Epilim▼, Depakote▼): Pregnancy Prevention Programme materials online (May 2018)</p>

BNF Chapter	4 Central Nervous System	
Section	4.3 Antidepressant drugs	
	NICE CG90: Depression in Adults NICE CG91: Depression in adults with a chronic physical health problem NICE CG192: Antenatal and postnatal mental health NICE CG26: Post traumatic stress disorder NICE CG113 Generalised anxiety disorder and panic disorder in adults	
	MHRA DSU: Antidepressants: risk of fractures, May 2010	
Subsection	4.3.1. Tricyclic and related antidepressants	
	Tricyclic antidepressants (TCAs) are not usually recommended as a first-line treatment for depression because they are associated with a greater risk of side effects than SSRIs or SNRIs and are generally more toxic in overdose	
	Tricyclic antidepressants	
	Lofepamine tablets: 70mg	
Alternatives	Clomipramine capsules: 10mg, 25mg, 50mg tablets M/R: 75mg	
	Tricyclic-related antidepressants	
	Trazodone capsules: 50mg, 100mg tablets: 150mg	
Subsection	4.3.2. Monoamine-oxidase inhibitors (MAOIs)	
First Choice (reversible)	Moclobemide tablets: 150mg, 300mg	 following specialist initiation
Alternatives (non-reversible)	Phenelzine  tablets: 15mg	
Subsection	4.3.3. Selective serotonin re-uptake inhibitors	
First Choice	Sertraline tablets: 50mg, 100mg	

Alternatives	Citalopram tablets: 10mg, 20mg, 40mg oral drops: 40mg/ml	MHRA DSU (2016): Citalopram: suspected drug interaction with cocaine; prescribers should consider enquiring about illicit drug use MHRA DSU: Citalopram and escitalopram: QT interval prolongation, Dec 2011
	Fluoxetine capsules: 20mg oral solution: 20mg/5ml	MHRA DSU: Fluoxetine: possible small risk of congenital cardiac defects, March 2010
Subsection	4.3.4 Other antidepressant drugs	
	GMMMG (2014): Agomelatine for major depressive episodes in adults	
First choice	Mirtazapine tablets: 15mg, 30mg, 45mg orodispersible tablets: 15mg, 30mg, 45mg	
Alternatives	Venlafaxine Tablets: 37.5mg, 75mg MR tablets: 37.5mg, 75mg, 150mg, 225mg	 specialist initiation for total daily doses \geq 300mg
	Duloxetine capsules: 30mg, 60mg	MHRA DSU: Duloxetine: regular assessment for suicidal ideation, Sept 2007
	Vortioxetine ▼ Tablets: 5, 10 and 20mg	 following specialist initiation NICE TA367: Vortioxetine for treating major depressive episodes


BNF Chapter	4 Central Nervous System	
Section	4.4 CNS stimulants and drugs for attention deficit hyperactivity disorder	
Subsection	ADHD adults	
	<p>NICE CG72: Attention deficit hyperactivity disorder</p> <p>NICE TA98: Methylphenidate, atomoxetine and dexamfetamine for ADHD in children and adolescents</p> <p>NTS recommendation: Methylphenidate, atomoxetine, dexamfetamine and lisdexamfetamine in the treatment of ADHD in adults</p>	
	Drug treatment of ADHD should be part of a comprehensive treatment programme that addresses psychological, behavioural and educational or occupational needs.	
First choice	<p>Methylphenidate U</p> <p>tablets: 5mg, 10mg, 20mg</p> <p>Modified release tablets</p> <p>Modified release capsules</p>	<p>U Unlicensed for treatment of adults</p> <p>A once patient stabilised as per SCG</p> <p>GM SCG: Methylphenidate, atomoxetine, dexamfetamine and lisdexamfetamine for ADHD in adults</p> <p>Different modified release preparations may not have the same clinical effect therefore prescribers should specify the brand to be supplied.</p>
Alternatives	<p>Atomoxetine</p> <p>capsules: 10mg, 18mg, 25mg, 40mg, 60mg, 80mg, 100mg</p>	<p>A once patient stabilised as per SCG</p> <p>GM SCG: Methylphenidate, atomoxetine, dexamfetamine and lisdexamfetamine for ADHD in adults</p> <p>MHRA DSU: Atomoxetine: increases in blood pressure and heart rate, Jan 2012</p>
	<p>Lisdexamfetamine</p> <p>capsules: 30mg, 50mg, 70mg</p>	<p>A once patient stabilised as per SCG</p> <p>GM SCG: Methylphenidate, atomoxetine, dexamfetamine and lisdexamfetamine for ADHD in adults</p>

Section	4.4 CNS stimulants and drugs for attention deficit hyperactivity disorder	
Subsection	CNS stimulants	
First choice	<p>Modafinil tablets: 100mg, 200mg</p>	<p>A Sleepiness associated with narcolepsy</p> <p>MHRA DSU: Modafinil now restricted to narcolepsy, March 2011</p> <p>NTS recommendation: The group does NOT recommend the use of modafinil for chronic shift-work sleep disorder</p>

BNF Chapter	4	Central Nervous System
Section	4.5	Drugs used in the treatment of obesity
	NTS recommendation: Liraglutide for the treatment of obesity	
Subsection	4.5.1	Anti-obesity drugs acting on the gastro-intestinal tract
	NICE CG189: Obesity: identification, assessment and management of overweight and obesity in children, young people and adults	
First choice	Orlistat capsules: 120mg	

BNF Chapter	4	Central nervous system
Section	4.6	Drugs used in nausea and vertigo
Vomiting in pregnancy		
First choice	Cyclizine U tablets: 50mg	
Alternatives	Prochlorperazine U tablets: 5mg	
	Metoclopramide U tablets: 10mg	MHRA DSU: Metoclopramide: risk of neurological adverse effects, Aug 2013
Postoperative nausea and vomiting		
	Local centres may have variations within their local postoperative nausea and vomiting guidelines.	
First choice	Cyclizine tablets: 50mg	
	Prochlorperazine tablets: 5mg buccal tablets: 3mg	
Alternatives 5HT3- receptor antagonists	Granisetron tablets: 1mg	R post-op or following chemotherapy
	Ondansetron tablets: 4mg, 8mg	R post-op or following chemotherapy Gn For exceptional use in non oncology patients with chronic emesis following consultant recommendation and where all other options have failed
Motion sickness		
First choice	Hyoscine hydrobromide chewable tablets: 150microgram, 300 microgram patches : 1mg/72 hours	
Alternatives	Cinnarizine tablets:15mg	

Vertigo / Meniere's		
First choice	Betahistine tablets: 8mg, 16mg	
Alternatives	Cinnarizine tablets: 15mg	
	Prochlorperazine tablets :5mg buccal tablets: 3mg	Acute symptoms only

BNF Chapter	4 Central nervous system	
Section	4.7 Analgesics	
Subsection	4.7.1 Non-opioid analgesics and compound analgesic preparations	
	Compound analgesic preparations that contain a simple analgesic (such as paracetamol) with an opioid component reduce the scope for effective titration of the individual components and are not recommended	
First choice	Paracetamol tablets: 500mg	
Alternatives	Paracetamol capsules: 500mg soluble tablets: 500mg oral suspension: 250mg/5ml suppositories: 500mg, 1g	Avoid prescribing soluble or effervescent analgesics in patients with cardiovascular disease, renal disease or hypertension due to high levels of salt
	Co-codamol  tablets 30mg/500mg soluble tablets 30mg /500mg	
Additional Notes		
For options on non-steroidal anti-inflammatory drugs (NSAIDs) please refer to Chapter 10: Musculoskeletal and joint diseases.		
NICE NG59: Low back pain and sciatica in over 16s: assessment and management		
Subsection	4.7.2 Opioid analgesics	
Weak opioid		
First choice	Codeine phosphate tablets: 15mg, 30mg, 60mg	
Alternatives	Dihydrocodeine tartrate tablets: 30mg	
Moderate opioid		
First choice	Tramadol hydrochloride capsules: 50mg	
Alternatives	Buprenorphine patch 7 days: 5 microgram / hour, 10 microgram / hour, 15 microgram/hour, 20 microgram / hour 4 days: 35 microgram/hour, 52.5 microgram/hour, 70 microgram/hour 3 days: 35 microgram / hour, 52.5 microgram, 70 microgram / hour	Buprenorphine patch: Different brands are NOT interchangeable Patches should be prescribed by brand as the frequency to be applied may vary between brands

Strong opioid		
	NICE CG140: Opioids in palliative care: safe and effective prescribing of strong opioids for pain in palliative care of adults NICE NG46: Controlled drugs: safe use and management	
First choice	Morphine sulfate tablets: 10mg, 20mg, 50mg oral solution: 10mg/5ml MR capsules (12-hourly): 10mg, 30mg, 60mg, 100mg, 200mg MR tablets (12-hourly): 5mg, 10mg, 15mg, 30mg, 60mg, 100mg	MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015
Alternatives	Fentanyl (72 hourly) patches: 12 microgram/hour, 25 microgram/hour, 50 microgram/hour, 37.5 microgram/hour, 75 microgram/hour, 100 microgram/hour	NTS recommendation: Oromucosal (Actiq®), Effentora®, Abstral®) and nasal (Instanyl®) fentanyl for breakthrough cancer pain MHRA DSU: Serious and fatal overdose of fentanyl patches, Sept 2008
	Oxycodone hydrochloride capsules: 5mg, 10mg, 20mg oral solution: 5mg/5ml modified release tablets: 5mg, 10mg, 15mg, 20mg, 30mg, 40mg, 60mg, 80mg, 120mg	NTS recommendation: Oxycodone/Naloxone MR (Targinact) for severe non-malignant pain

Subsection	4.7.3 Neuropathic Pain	
	NICE CG173: Neuropathic pain - pharmacological management GMMMG: Neuropathic Pain NTS recommendation: Sativex for non-MS neuropathic pain (unlicensed)	
First choice	Amitriptyline tablets: 10mg, 25mg, 50mg oral solution: 25mg/5ml, 50mg/5ml	
	Gabapentin capsules: 100mg, 300mg, 400mg tablets: 600mg	MHRA DSU: Gabapentin (Neurontin): risk of severe respiratory depression, Oct 2017
Alternatives to amitriptyline	Imipramine tablets: 10mg, 25mg	Only if adverse effects to amitriptyline
Alternative to gabapentin	Pregabalin capsules: 25mg, 50mg, 75mg, 100mg, 150mg, 200mg, 225mg, 300mg	 Pregabalin only appropriate if gabapentin is effective but not tolerated due to side effects
Alternatives	Duloxetine capsules: 30mg, 60mg	Duloxetine can be considered when a clear diagnosis of diabetic neuropathy
	Tramadol capsules: 50mg	Consider tramadol only if acute rescue therapy is needed for a short treatment duration
Trigeminal neuralgia		
First choice	Carbamazepine tablets: 100mg, 200mg, 400mg	
Alternative	Gabapentin capsules: 300mg tablets: 600mg	MHRA DSU: Gabapentin (Neurontin): risk of severe respiratory depression, Oct 2017








Subsection	4.7.4 Antimigraine drugs	
	NICE CG150: Headaches	
	4.7.4.1 Treatment of acute migraine	
	GMMMG: Northwest headache pathway GMMMG: Northwest headache pathway guideline notes	
Analgesics		
	A simple analgesic such as aspirin, paracetamol (preferably in a soluble or dispersible form) or an NSAID (10.1.1) is often effective; concomitant antiemetic treatment may be required.	
	Aspirin tablets 300mg soluble tablets 300mg	
	Paracetamol tablets: 500mg soluble tablets: 500mg	
5HT1-receptor agonists		
First choice	Sumatriptan tablets: 50mg, 100mg	
Alternatives	Sumatriptan nasal spray: 10mg per actuation, 20mg per actuation	
	Naratriptan tablets: 2.5mg	
Antiemetics		
	Domperidone tablets: 10mg	MHRA DSU: Domperidone: risks of cardiac side effects, May 2014
	Metoclopramide tablets: 10mg	MHRA DSU: Metoclopramide: risk of neurological adverse effects, Aug 2013
4.7.4.2 Prophylaxis of migraine		
First choice	Propranolol tablets: 80mg MR capsules: 80mg	

Alternatives	Topiramate tablets: 25mg, 50mg, 100mg	G_n following specialist advice
	Botulinum toxin type A (Botox®) 50-unit vial, 100-unit vial, 200-unit vial	R NICE TA260: Botulinum toxin type A for the prevention of headaches in adults with chronic migraine
4.7.4.3 Cluster headache and the trigeminal autonomic cephalalgias		
First choice	Sumatriptan subcutaneous injection: 6mg/0.5mL syringe	
Alternatives	Sumatriptan nasal spray U : 10mg per actuation, 20mg per actuation	

BNF Chapter	4 Central nervous system	
Section	4.8 Antiepileptic drugs	
Subsection	4.8.1 Control of the epilepsies	
	<p>Initiation and withdrawal of therapy must only be managed by a specialist.</p> <p>Drugs that are not routinely prescribed are not included in the formulary however if a specialist recommends a drug and it is listed as 'G_n following specialist advice' within the RAG list then the patient can be prescribed that treatment.</p> <p>NICE CG137 The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care</p>	
	<p>MHRA DSU: Antiepileptic drugs: Updated advice on switching between different manufacturers' products, Nov 2017</p> <p>Category 1 – Ensure that the patient is maintained on a specific manufacturer's product.: carbamazepine, phenobarbital, phenytoin, primidone</p> <p>Category 2 - Base the need for continued supply of a particular manufacturer's product on clinical judgement and consultation with patient and/or carer, taking into account factors such as seizure frequency and treatment history. Take into account patient/carer-related factors such as their negative perceptions about alternative products and/or other issues related to the patient should also be taken into account: clobazam, clonazepam, eslicarbazepine, lamotrigine, oxcarbazepine, perampanel, retigabine, rufinamide, topiramate, valproate, zonisamide</p> <p>Category 3 – The potential for clinically relevant differences to exist between different manufacturers' products is considered to be extremely low. However, consider other patient/carer-related factors, such as negative perceptions about alternative products and/or other issues related to the patient (e.g. patient anxiety, risk of confusion or dosing errors): brivaracetam, ethosuximide, gabapentin, lacosamide, levetiracetam, pregabalin, tiagabine, vigabatrin</p>	
	<p>MHRA DSU: St Johns Wort may interact with antiepileptics, Nov 2007</p> <p>MHRA DSU: Antiepileptics adverse effects on bone, April 2009</p>	
Most commonly prescribed		
Alphabetical order	<p>Carbamazepine</p> <p>MR tablets: 200mg, 400mg</p> <p>tablets: 100mg, 200mg, 400mg</p>	<p>G_n following specialist advice</p> <p>MHRA DSU: Carbamazepine, oxcarbazepine and eslicarbazepine: potential risk of serious skin reactions, Dec 2012</p>
	<p>Lamotrigine</p> <p>tablets: 25mg, 50mg, 100mg, 200mg</p> <p>dispersible tablets: 25mg, 100mg</p>	<p>G_n following specialist advice</p>
	<p>Levetiracetam</p> <p>tablets: 250mg, 500mg, 750mg, 1g</p> <p>oral solution: 100mg/ml</p>	<p>G_n following specialist advice</p>





	<p>Sodium valproate EC tablets 200mg, 500mg MR tablets: 200mg, 300mg, 500mg SF liquid : 200mg/5ml</p>	<p>G_n following specialist advice MHRA DSU: Valproate medicines (Epilim▼, Depakote▼): contraindicated in women and girls of childbearing potential unless conditions of Pregnancy Prevention Programme are met (April 2018) MHRA DSU: Valproate medicines (Epilim▼, Depakote▼): Pregnancy Prevention Programme materials online (May 2018)</p>
Other drugs		
Alphabetical order	<p>Clobazam tablets: 10mg</p>	<p>G_n following specialist advice</p>
	<p>Clonazepam tablets: 500microgram, 2mg</p>	<p>G_n following specialist advice MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015</p>
	<p>Gabapentin capsules:100mg, 300mg, 400mg</p>	<p>G_n following specialist advice MHRA DSU: Gabapentin (Neurontin): risk of severe respiratory depression, Oct 2017</p>
	<p>Lacosamide tablets: 50mg, 100mg, 150mg, 200mg oral solution: 10mg/ml</p>	<p>G_n following specialist advice NTS recommendation: Lacosamide as adjunctive therapy for partial onset seizures</p>
	<p>Oxcarbazepine tablets: 150mg, 300mg, 600mg suspension 300mg/5ml</p>	<p>G_n following specialist advice MHRA DSU: Carbamazepine, oxcarbazepine and eslicarbazepine: potential risk of serious skin reactions, Dec 2012</p>
	<p>Phenobarbital tablets: 15mg, 30mg, 60mg</p>	<p>G_n following specialist advice</p>
	<p>Phenytoin capsules: 25mg, 50mg, 100mg suspension: 30mg/5ml</p>	<p>G_n following specialist advice MHRA DSU: Risk of Stevens-Johnson syndrome, Jan 2010</p>
	<p>Pregabalin capsules: 25mg, 50mg, 75mg, 100mg, 150mg, 200mg, 225mg, 300mg</p>	<p>G_n following specialist advice</p>

	<p>Primidone tablets: 50mg, 250mg</p>	<p>Gn following specialist advice</p>
	<p>Topiramate tablets : 25mg, 50mg, 100mg, 200mg</p>	<p>Gn following specialist advice</p>
	<p>Zonisamide capsules : 25mg, 50mg, 100mg</p>	<p>Gn following specialist advice</p>
Subsection	4.8.2 Drugs used in status epilepticus	
First choice	<p>Midazolam hydrochloride oromucosal solution 5mg/ml: 2ml syringe (Buccolam▼)</p>	<p>Gn specialist initiation MHRA DSU: Buccal midazolam, Oct 2011</p>
Alternatives	<p>Diazepam rectal tubes: 2.5mg, 5mg, 10mg</p>	<p>MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015</p>

Chapter	4. Central nervous system	
Section	4.9 Drugs used in parkinsonism and related disorders	
	<p>Drugs that are not routinely prescribed are not included in the formulary however if a specialist recommends a drug and it is listed as '  following specialist advice' within the RAG list then the patient can be prescribed that treatment.</p>	
	<p>NICE CG35: Parkinson's disease states that it is not possible to identify a universal first-choice drug therapy for people with PD. The choice of drug first prescribed should take into account:</p> <ul style="list-style-type: none"> • clinical and lifestyle characteristics • patient preference, after the patient has been informed of the short and long-term benefits and drawbacks of the drug classes. <p>Brand prescribing may be considered where differences in appearance of a medication may cause a patient anxiety or where familiarity with a particular product in a particular device is important e.g. with apomorphine.</p>	
Subsection	4.9.1 Dopaminergic drugs used in Parkinson's disease	
	MHRA (2007) Dopamine agonists: pathological gambling, increased libido and hypersexuality	
Dopamine-receptor agonists		
First line	Pramipexole tablets: 88microgram, 180microgram, 350microgram, 700microgram	 following specialist advice
	Ropinirole tablets: 250microgram, 500microgram, 1mg, 2mg, 5mg	 following specialist advice
	Rotigotine 24 hour patch: 1mg, 2mg, 4mg, 6mg, 8mg	 following specialist advice NTS recommendation: Rotigotine patches
Second line	Pramipexole modified release tablets: 260microgram, 520microgram, 1.05mg, 1.57 mg, 2.1mg, 3.15mg	 following specialist advice
	Ropinirole modified release tablets: 2mg, 4mg, 8mg	 following specialist advice
Third line	MHRA DSU: Ergot-derived dopamine agonists: risk of fibrotic reactions, Oct 2008	
	Apomorphine injection : 10mg/ml : 2ml amp, 5ml amp pens: 10mg/ml: 3ml pen injector pre-filled syringes: 5mg/ml: 10ml PFS	 MHRA DSU: Apomorphine with domperidone: minimising risk of cardiac side effects (April 2016)

		MHRA DSU: Dopamine agonists: pathological gambling, increased libido, and hypersexuality (August 2007)
Levodopa		
First line (levodopa with dopa-decarboxylase inhibitor)	Co-beneldopa capsules: 12.5/50, 25/100, 50/200 dispersible tablets 12.5/50, 25/100 modified release capsules: 25/100	Gn following specialist advice
	Co-careldopa tablets: 10/100, 25/100, 25/250 modified release tablets:25/100, 50/200	Gn following specialist advice
	Co-careldopa with entacapone Stalevo – see BNF for various strengths	Gn following specialist advice
Monoamine-oxidase-B inhibitors		
	Rasagiline tablets: 1mg	Gn following specialist advice
	Safinamide▼ tablets : 50mg, 100mg	Gn following specialist advice GMMMG recommendation: Safinamide (Xadago®▼) for the management of mid-late Parkinson’s disease
	Selegiline tablets: 5mg, 10mg	Gn following specialist advice
Catechol-O-methyltransferase inhibitors		
First line	Entacapone tablets: 200mg	Gn following specialist advice
Second line	Opicapone▼ Hard capsules: 50mg	Gn following specialist advice GMMMG recommendation: Opicapone (Ongentys®▼) for the management of mid-late Parkinson’s disease
Amantadine		
	Amantadine capsules: 100mg oral solution: 50mg/5ml	Gn following specialist advice

Subsection	4.9.2 Antimuscarinic drugs used in parkinsonism	
	Not recommended due to association with cognitive impairment. Not recommended in the elderly due to toxicity and risk of aggravating dementia.	
First choice	Procyclidine tablets: 5mg sugar free syrup: 2.5mg/5ml, 5mg/5ml	G_n
Alternatives	Orphenadrine tablets: 50mg	
Subsection	4.9.3 Drugs used in essential tremor, chorea, tics and related disorders	
	Riluzole tablets: 50mg	A NICE TA20: Riluzole for motor neurone disease NICE NG42: MND:assessment and management
Additional Notes		
<p>Propranolol (section 2.4) may be useful in treating essential tremor or tremors associated with anxiety of thyrotoxicosis.</p> <p>Specialist centres will advise on suitable alternative options for essential tremor, chorea, tics and related disorders.</p>		

BNF Chapter	4 Central Nervous System	
Section	4.10 Drugs used in substance dependence	
Subsection	4.10.1 Alcohol dependence	
	NICE CG115: Alcohol dependence and harmful alcohol use NICE NG58: Coexisting severe mental illness and substance misuse: community health and social care services	
Alphabetical order	Acamprosate gastro-resistant tablets: 333mg	 In conjunction with specialist service
	Chlordiazepoxide capsules: 5mg, 10mg tablets: 5mg, 10mg	For detoxification as a short course to aid alcohol withdrawal
	Disulfiram tablets: 200mg	 Patient must be stabilised prior to transfer of prescribing. (> 3 months) GM SCG: Disulfiram in the treatment of alcohol dependence
	Nalmefene▼ tablets: 18mg	 In conjunction with specialist service GMMMG (2014): Nalmefene for alcohol dependence NICE (2014): Nalmefene for reducing alcohol consumption in people with alcohol dependence, TA325 NICE HTTA325 (2015): Nalmefene
	Naltrexone tablets: 50mg	 Recommended in NICE guidance for max 6 months duration. To remain under specialist community alcohol teams
Subsection	4.10.2 Cigarette smoking	
Therapy is chosen according to the smoker's likely compliance, availability of counselling and support, previous experience of smoking cessation aids, contra-indications and adverse effects of the products and smokers preference.		
	MHRA DSU: Smoking and smoking cessation: clinically significant interactions with commonly used medicines, Oct 2009 NICE PH45: Tobacco: harm-reduction approaches to smoking NICE NG92: Stop smoking interventions and services	

First choice	<p>Nicotine</p> <p>patches 16 hour: 5mg, 10mg, 15mg, 25mg</p> <p>patches 24 hour: 7mg, 14mg, 21mg</p> <p>chewing gum: 2mg, 4mg</p> <p>lozenges: 2mg, 4mg</p> <p>inhalator cartridges: 10mg, 15mg</p> <p>oral spray: 1mg</p>	
Alternatives	<p>Varenicline</p> <p>2 week starter pack: 11x500 microgram with 14x1mg tablets</p> <p>tablets: 500mcg, 1mg</p>	<p>NICE TA123: Varenicline for smoking cessation</p> <p>Varenicline should normally be prescribed only as part of a programme of behavioural support.</p> <p>Clinicians should be aware of the possible emergence of significant depressive symptoms when using varenicline</p>
	<p>Bupropion hydrochloride</p> <p>modified release tablets: 150mg</p>	
Additional Notes		
The combination of NRT with varenicline▼ or bupropion is not recommended		
Subsection	4.10.3 Opioid dependence	
	NICE (2007): Methadone and buprenorphine for the management of opioid dependence (TA114)	
First choice	<p>Methadone</p> <p>oral solution: 1mg/1ml</p>	<p>MHRA DSU: Drugs and driving: blood concentration limits set for certain drugs, Feb 2015</p> <p>RAG status depends on local commissioning arrangements for substance misuse or if GP with specialist interest</p>
Alternatives	<p>Buprenorphine</p> <p>sublingual tablets: 400microgram, 2mg, 8mg</p>	RAG status depends on local commissioning arrangements for substance misuse or if GP with specialist interest
	<p>Lofexidine</p> <p>tablets: 200microgram</p>	Lofexidine for detoxification
	<p>Naltrexone</p> <p>tablets: 50mg</p>	<p>For alcohol disorders R</p> <p>NICE TA115: Naltrexone for the management of opioid dependence</p> <p>For opioid dependence: RAG status depends on local commissioning arrangements for</p>

		substance misuse or if GP with specialist interest
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BNF Chapter	4 Central Nervous System	
Section	4.11 Drugs for dementia	
	NICE CG42: Dementia: supporting people with dementia and their carers in health and social care NICE TA217: Alzheimer's disease - donepezil, galantamine, rivastigmine and memantine	
First choice	Donepezil tablets: 5mg, 10mg SF orodispersible tablets: 5mg, 10mg	Gn (following specialist initiation)
Alternatives	Galantamine tablets: 8mg, 12mg modified release capsules: 8mg, 16mg, 24mg	Gn (following specialist initiation)
	Rivastigmine capsules : 1.5mg, 3mg, 4.5mg, 6mg patches: 4.6mg/24hours, 9.5mg/24 hours	Gn (following specialist initiation) NTS recommendation: Rivastigmine for dementia with Lewy Bodies NTS recommendation: Rivastigmine for Parkinson's disease dementia MHRA DSU: Rivastigmine transdermal patch: risk of medication errors, June 2010
	Memantine tablets: 10mg, 20mg	Gn (following specialist initiation) MHRA DSU: Memantine pump device: risk of medication errors Nov 2010