

BNF CHAPTER 4: CENTRAL NERVOUS SYSTEM

References:

- BNF 62, September 2011
- SEPT Formulary and Prescribing Guidelines (Mental Health)
<http://nww.eastern.nhs.uk/scripts/index.asp?pid=363&id=89469>
- NICE Guidance
- CKS / Prodigy.

BNF 4.1.1 HYPNOTICS

First Choice	Typical Dose	Alternatives	Typical Dose
Zopiclone	3.75-7mg at night	Temazepam	10-20 mg at night

BNF 4.1.2 ANXIOLYTICS

First Choice	Typical Dose
Diazepam	2-5mg three times daily for anxiety 5-15mg at night for insomnia associated with anxiety

- Treatment with hypnotics (for sleep disturbance) should be considered after non-pharmacological methods have been tried first.
- Benzodiazepines and Z-drugs should not usually be prescribed for more than 2 – 4 weeks.
- Longer acting hypnotics e.g. **nitrazepam, should be avoided.**
- The most suitable benzodiazepine, as anxiolytic, is diazepam because it is rapidly absorbed and has a long half-life. Benzodiazepines (anxiolytics) with longer half-lives are less likely to cause dependence problems than those with shorter half-lives e.g. **lorazepam (licensed for the treatment of acute anxiety states, excitement or acute mania).**
- Refer to SEPT Guidelines on Treatment of Insomnia for more information
[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section5-TreatmentofInsomnia.pdf](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section5-TreatmentofInsomnia.pdf)
- Refer to SEPT Guidelines on Treatment of Anxiety Disorders for more information
[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section4-TreatmentofAnxiety.pdf](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section4-TreatmentofAnxiety.pdf)

	First Choice	Dose
First Generation Antipsychotics	Haloperidol	Initially 0.5-3mg twice or three times daily. Maintenance dose 5-10mg daily. Elderly initially half adult dose.

	First Choice	Dose
Second Generation Antipsychotics	Risperidone	Initially 2mg in 1-2 divided doses on first day, then 4mg in 1-2 divided doses. Usual dose 4-6mg daily. Elderly 500mcg – 2mg twice daily

- For more information on side effects, licensed indications and monitoring of antipsychotics please refer to SEPT Formulary and Prescribing Guidelines on Treatment of Psychosis.
[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section2-TreatmentofPsychosis.pdf](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section2-TreatmentofPsychosis.pdf)
- For more information on the use of antipsychotics in patients with dementia, please refer to SEPT Formulary and Prescribing Guidelines on Treatment on Dementia.
[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section7-ManagementofDementia.PDF](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section7-ManagementofDementia.PDF)

BNF 4.2.3 ANTIMANIC DRUGS

- Should be initiated and prescribed only under supervision of a **Consultant Psychiatrist**.
- Refer to SEPT Formulary and Prescribing Guidelines on Treatment of Bipolar Affective Disorder for more information
[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section3-TreatmentofBipolarAffectiveDisorder.pdf](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section3-TreatmentofBipolarAffectiveDisorder.pdf)

BNF 4.3 ANTIDEPRESSANT DRUGS

	Choice	Typical Dose	Side effect profile							Recommended antidepressant in case of other physical health problem.
			Anti-cholinergic	Cardiac	Nausea	Sedation	Over-dose Toxicity	Pro-convulsant	Sexual Dysfunction	
BNF 4.3.1 Tricyclic and related antidepressants	Lofepramine	140-210mg daily in divided doses	++	+	+	+	0	0	++	
BNF 4.3.2 Monoamine-oxidase inhibitors	Monoamine oxidase inhibitors (MAOIs) should be prescribed only under supervision of a Consultant Psychiatrist									
BNF 4.3.3 Selective Serotonin Re-uptake Inhibitors	Fluoxetine	20mg -60mg	0	0	++	0	0	0	++	Do not normally offer SSRIs if patient is on NSAIDs or aspirin, but if no suitable alternatives can be identified, offer gastro-protective medicines (for example, proton pump inhibitors) together with the SSRI
	Citalopram	10-40mg (max 20mg for the elderly)	0	++	+++	+	+	+	++	
	Sertraline	50-200mg	0	0	++	0	0	0	++	
BNF 4.3.4 Other antidepressant drugs	Mirtazapine	15mg-45mg	0	0	0	++	0	++	++	Offer mirtazapine if the patient is on any "Triptan" for migraine. Consider mirtazapine if the patient is on warfarin or aspirin.

- For more information on antidepressant choice in case of other physical health problems, discontinuation symptoms, licensed indications, side effect profile and switching antidepressants, please refer to SEPT Formulary and Prescribing Guidelines on Treatment of Depression.
[http://www.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section1-TreatmentofDepression.pdf](http://www.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section1-TreatmentofDepression.pdf)

BNF 4.4 CENTRAL NERVOUS SYSTEM STIMULANTS

- **Specialist use only.**
- Refer to SEPT Formulary and prescribing Guidelines on Treatment of ADHD for more information [http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section6-TreatmentofADHD.pdf](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section6-TreatmentofADHD.pdf)

BNF 4.5 DRUGS USED IN THE TREATMENT OF OBESITY

First Choice	Typical Dose (& cost for 28 days)
Orlistat	120mg taken immediately before, during, or up to 1 hour after each main meal (max. three times a day)

- Prescribe **only** for patients who have not reached their target weight loss or have reached a plateau on dietary, activity and behavioral changes alone, as part of an overall plan for managing obesity in adults who have:
 - a BMI of 28.0 kg/m² or more with associated risk factors, or
 - a BMI of 30.0 kg/m² or more.
- Continue treatment for longer than 3 months **only** if the person has lost at least 5% of their initial body weight since starting drug treatment (less strict goals may be appropriate for people with type 2 diabetes).
- Continue for longer than 12 months (usually for weight maintenance) **only** after discussing potential benefits and limitations with the patient.
- See NICE Guidance for further details: CG 43 Obesity <http://www.nice.org.uk/nicemedia/live/11000/30364/30364.pdf> .

BNF 4.6 DRUGS USED IN NAUSEA AND VERTIGO

First Choice	Typical Dose	Alternatives	Typical Dose
VERTIGO (Clinical Knowledge Summaries / Prodigy):			
Prochlorperazine	5-10mg three times daily for 7 days only.	Promethazine hydrochloride / teoclate	25mg up to three times daily for 7 days only
<ul style="list-style-type: none"> Rapid relief of severe nausea and vomiting in Vertigo: 			
Prochlorperazine buccal tablets	6mg stat, supply 2x3mg tablets	Prochlorperazine IM injection	12.5mg/1ml, supply 1x1 ml ampoules.
NAUSEA AND VOMITING IN MENIERE'S DISEASE (Clinical Knowledge Summaries / Prodigy):			
<ul style="list-style-type: none"> Acute attack, same treatment as VERTIGO; for recurrent attacks of Meniere's disease: 			
Betahistine		16mg TDS, reduce to 8mg TDS for maintenance.	
NAUSEA AND VOMITING IN PREGNANCY (Clinical Knowledge Summaries / Prodigy):			
Promethazine hydrochloride	10-20-25mg at night, the dose may be repeated the next morning if necessary.	Metoclopramide	10mg up to three times a day.
Prescribe metoclopramide with caution in patients under 20 years of age to reduce risk of dystonic reactions.			
NAUSEA AND VOMITING IN PARKINSON'S DISEASE (Clinical Knowledge Summaries / Prodigy):			
Domperidone		10-20mg three or four times a day. Reducing or stopping it when nausea settles.	
Avoid metoclopramide or prochlorperazine in Parkinson's disease.			

- Benign Paroxysmal Positional Vertigo – Management. According to Prodigy most drugs are not effective in treating BPPV and may have adverse effects. [Bhattacharyya et al, 2008](#), [Hain and Uddin, 2003](#)

NAUSEA AND VOMITING IN PALLIATIVE CARE:

- Refer to Palliative Care Formulary, ESSEX PALLIATIVE AND SUPPORTIVE CARE NETWORK - FORMULARY AND GUIDELINES FOR MANAGEMENT (page 32-36)
<http://www.see.nhs.uk/content/file/GP%20Zone/Medicine%20management/Formulary/PALLIATIVE%20CARE%20FORMULARY%202010.pdf>

BNF 4.7.1 NON-OPIOID ANALGESICS AND COMPOUND ANALGESIC PREPARATIONS

First Choice	Typical Dose	Alternatives	Typical Dose
Paracetamol	500mg-1gr four times daily	Co-dydramol Co-codamol 8/500	2 tablets four times daily 2 tablets four times daily

- Compound analgesic preparations containing paracetamol with a high dose opioid component (e.g. Co-codamol 30/500) are not recommended. Preparations containing a full dose of the opioid carry the full range of opioid side-effects. In addition, combination preparations have inflexible dosing regimens, and are more expensive than prescribing the components separately, consider prescribing separately.

BNF 4.7.2 OPIOID ANALGESICS

First Choice	Typical Dose	Alternatives	Typical Dose
Codeine	15-60mg four times daily	Morphine Sulphate 10mg/5ml (Oramorph liquid)	5-10mg 4 hourly PRN
Dihydrocodeine	30mg up to four times daily	Morphine: - Morphgesic SR tablets - Zomorph MR capsules	Adjust according to daily morphine requirements

- For pain control in palliative care refer to Palliative Care Formulary, ESSEX PALLIATIVE AND SUPPORTIVE CARE NETWORK - FORMULARY AND GUIDELINES FOR MANAGEMENT
<http://www.see.nhs.uk/content/file/GP%20Zone/Medicine%20management/Formulary/PALLIATIVE%20CARE%20FORMULARY%202010.pdf>

• **BNF 4.7.3 NEUROPATHIC PAIN**

	First-line	Typical Dose	Second-line (switch to other drug or in combination with original)	Typical Dose
Neuropathic pain conditions	Amitriptyline	10-75mg daily	Pregabalin	150-600mg a day IN TWO DIVIDED DOSES
Painful diabetic neuropathy	Duloxetine Amitriptyline if duloxetine is contraindicated	30-60mg daily 10-75mg daily	Pregabalin	150-600mg a day IN TWO DIVIDED DOSES

- If satisfactory pain reduction is obtained with amitriptyline but the person cannot tolerate the adverse effects, consider oral imipramine or nortriptyline as alternative (not licensed for this indication, informed consent should be obtained and documented). Ref: NICE CG 96.
- Refer to NICE Clinical Guideline 96 NEUTOPATHIC PAIN for more information
<http://www.nice.org.uk/nicemedia/live/12948/47936/47936.pdf>

BNF 4.7.4.1 TREATMENT OF ACUTE MIGRAINE.

First-line	Typical Dose	Second-line	Typical Dose
Simple analgesia Paracetamol / NSAIDs	500mg-1gr up to QDS / Refer to BNF.10.1.1	Sumatriptan	50-100mg stat. Dose may be repeated after at least 2 hours if another migraine attack recurs. Patient not responding to initial dose of sumatriptan should not take second dose for same attack. Max 300mg in 24 hours

Ref: CKS / Prodigy – Management of Migraine:

- If nausea and vomiting are troublesome, consider simple analgesia with an anti-emetic such as prochlorperazine, domperidone or metoclopramide.
- **Codeine, alone or in combination products, or other opioids should be avoided.**
- Ergotamine is not recommended as second-line option.

BNF 4.7.4.2 PROPHYLAXIS OF MIGRAINE

First Choice	Typical Dose	Alternatives	Typical Dose
Propranolol	80-360mg daily	Amitriptyline (unlicensed indication)	10-100mg 1-2 hours before bedtime

Ref: CKS / Prodigy Management of Migraine:

- Pizotifen is another option, but generally lacks efficacy and is poorly tolerated.

BNF 4.8. ANTIEPILEPTIC DRUGS

- The prescribing of antiepileptic drugs should be according to specialist advice.

BNF 4.9. DRUGS USED IN PARKINSONISM AND RELATED DISORDERS

- The treatment in Parkinson's disease should be according to specialist advice.

BNF 4.9.2 ANTI-MUSCARINIC DRUGS USED IN PARKINSONISM

- For more information refer to SEPT ANTIMUSCARINIC DRUGS FOR EXTRA-PYRAMIDAL SIDE EFFECTS (EPSE)

[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section9-AntimuscarinicDrugsforEPSE.PDF](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section9-AntimuscarinicDrugsforEPSE.PDF)

BNF 4.9.3 DRUGS USED IN ESSENTIAL TREMOR, CHOREA, TICS, AND RELATED DISORDERS.

- The treatment of these conditions should be according to **specialist advice**.

BNF 4.10. DRUGS USED IN SUBSTANCE DEPENDENCE.

- The prescribing of medicines for alcohol and opioid dependence should be according to **specialist advice**.
- For more information refer to SEPT MANAGEMENT OF ALCOHOL, OPIOID AND BENZODIAZEPINE DEPENDENCE

[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section10-ManagementofDependence.PDF](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section10-ManagementofDependence.PDF)

BNF 4.11 DRUGS FOR DEMENTIA

- Treatment in dementia should be according to **specialist advice**.
- For more information refer to SEPT MANAGEMENT OF DEMENTIA

[http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines\(MentalHealth\)/Section7-ManagementofDementia.PDF](http://nww.eastern.nhs.uk/Essex/SouthEssexPartnershipNHSFoundationTrustMedicinesManagement/FormularyandPrescribingGuidelines(MentalHealth)/Section7-ManagementofDementia.PDF)