Barnet, Enfield and Haringey NHS
Mental Health NHS Trust

FORMULARY AND PRESCRIBING GUIDELINES FOR CHILDREN AND ADOLESCENTS IN MENTAL HEALTH SERVICES

Version Control Summary

Version	Date	Section(s)	Author	Comment(s)/Amendments
1	August 2008	All Sections	Gbemi Kuforiji	New version created
2	February 2011	5, 11	Georgia Michael	Added NICE guidance recommendations on Nocturnal Enuresis (CG111 –Oct 20101).
2	March 2011	7	Georgia Michael	Updated the dosage instructions for Aripiprazole
3	March 2013	7, 10 and Appendix 15 (removed)	Jane Moriba	Added NICE guidance recommendations on Recognition and Management of Psychosis and Schizophrenia in Children and Young People (CG 155 –Jan 2013) Removed reference relating to the use of Olanzapine IM injection following its removal from the UK market. Removed Equality Impact Assessment – as these are guidelines and not a policy
3.1	June 2013			Added recommendations on the use of medicines for **NICE Clinical Guidelines 158 (March 2013) Antisocial behaviour and conduct disorders in children and young people: recognition, intervention and management**
4	November 2015		Jane Moriba	Correction to age range for dexamethasone (ADHD)
5	September 2017		Jane Moriba	General review in line with 2016-2017 BNF for Children

Content

	Introduction	**3**
1.	**Anxiety Disorders**	**4**
2.	**Attention Deficit Hyperactivity Disorder (ADHD) , Hyperkinetic (HK) and Antisocial Behaviour and Conduct Disorders**	**5**
3.	**Bipolar Disorder**	**8**
4.	**Depression**	**11**
5.	**Nocturnal Enuresis**	**13**
6.	**Obsessive Compulsive Disorder (OCD) and Body Dysmorphic Disorder**	**16**
7.	**Schizophrenia**	**17**
8.	**Tourettes Syndrome/ Tic Disorders**	**19**
9.	**Insomnia**	**20**
10.	**Emergency (Rapid) Tranquillisation**	**21**
11.	**References**	**23**
12.	**Monitoring**	**24**
13.	**Appendix 1:The Use of Unlicensed Medicines or Licensed Medicines for Unlicensed Applications in Child and Adolescent Mental Health Services**	**25**
14.	**Appendix 2: Abbreviations and Symbols**	**29**

Introduction

The use of unlicensed medicines or licensed medicines for unlicensed applications is necessary in paediatric practice when there is no suitable alternative. Such uses are informed and guided by a respectable and responsible body of professional opinion.

The Medicines Act (1968) and Regulations (which incorporate the relevant EC directives) provide exemptions that enable doctors to:

- Prescribe unlicensed medicines;
- Use in particular (named) patients, unlicensed products specially prepared, imported or supplied;
- Use medicines which are not authorised to be marketed, in clinical trials, through the Trials Certificate (Exemption) Scheme;
- Use or advise the use of licensed medicines for indications, or in doses, or by routes of administration, outside the recommendations of the licence;
- Override the warnings and the precautions given in the licence.

In each case, the doctor has to be able to justify the action taken as being in accordance with a respectable, responsible body of professional opinion. With regards to certain medicines within this formulary, the initiation and/or maintenance of the patient on the medicine may require specialist/consultant supervision. Where this is the case, there is a note in the text.

1. Anxiety disorders

Benzodiazepines

CSM advice[1]:

1. Benzodiazepines are indicated for short-term relief (two to four weeks only) of anxiety that is severe, disabling, or subjecting the individual to unacceptable distress, occurring alone or in association with insomnia or short-term psychosomatic, organic or psychotic illness.
2. The use of benzodiazepines to treat short-term 'mild' anxiety is inappropriate and unsuitable.
3. Benzodiazepines should be used to treat insomnia only when it is severe, disabling, or subjecting the individual to extreme distress.

The management of *acute anxiety* in children with drug treatment is contentious. For *chronic anxiety* (of longer than 4 weeks duration), it may be appropriate to use an antidepressant before a benzodiazepine.

Diazepam

Preparations: Tablets 2 mg, 5 mg, and 10 mg; oral solution 2mg /5ml; strong oral solution 5mg/ 5ml; rectal tube 2mg/ ml; injections solution and emulsion 5mg/ ml.

Indication and Dosage:

Anxiety Disorders
**Dose for anxiety

Night terror and somnambulism:
- By mouth

Child 12-18 years:
1-5mg at bedtime

Lorazepam

Preparations: Tablets 1mg; injections 4mg/ml.

Dosage:

Anxiety Disorders
**Dose for anxiety

***Note: that although this drug is used in anxiety disorders, there is no dose stated in the cBNF for this indication. Please confer with your consultant and/or refer to the CAMHS Rapid Tranquilisation Policy*

Antihistamines

Alimemazine (Trimeprazine) Tartrate

Preparations: Tablet 10mg; syrup 7.5mg/5ml, and syrup forte 30mg/5ml

Dosage:

Anxiety Disorders
**Dose for anxiety

***Note: that although this drug is used in anxiety disorders, there is no dose stated in the cBNF for this indication. Please confer with your consultant*

2. Attention Deficit Hyperactivity Disorder (ADHD), Hyperkinetic Disorder (HK) and Antisocial behaviour and conduct disorders

NICE technological appraisal 98 (March 2006): methylphenidate, atomoxetine and dexamfetamine used for attention deficit hyperactivity disorder (ADHD)[4]:
Recommends methylphenidate, atomoxetine and dexamfetamine as option for the treatment of ADHD in children and adolescents as part of a comprehensive treatment programme. The choice of drug should take into consideration the following:
- Co-morbid conditions (such as tic disorders, Tourette syndrome, and epilepsy);
- Different adverse effects of the drugs;
- Specific issues regarding compliance identified for the individual child or adolescent;
- Potential for drug diversion and/or misuse;
- Preference of the child and carers.

NICE Clinical Guidelines 158 (March 2013) Antisocial behaviour and conduct disorders in children and young people: recognition, intervention and management
Recommends methylphenidate or atomoxetine, within their licensed indications, for the management of ADHD in children **and young people with oppositional defiant disorder or conduct disorder**, in line with Attention deficit hyperactivity disorder (NICE clinical guideline72 http://guidance.nice.org.uk/CG72).

Central Nervous System (CNS) stimulants

Atomoxetine

CSM advice[1]:
Hepatic disorders: Following rare reports of hepatic disorders, the CSM has advised that children and carers should be advised of the risk and be told how to recognise symptoms; prompt medical attention should be sought in case of abdominal pain, unexplained nausea, malaise, darkening of urine or jaundice.
Suicidal ideation: Following reports of suicidal thoughts and behaviour, the CSM has advised that patients and their carers should be informed about the risk and told to report clinical worsening, suicidal thoughts or behaviour, irritability, agitation, or depression.

Preparations: Atomoxetine (Strattera®) capsules 10mg, 18mg, 25mg, 40mg, 60mg, and 100mg.

Dosage:

**Initiated by specialist*

Child 6- 17 years (body-weight up to 70kg)
Initially 500 micrograms/kg daily for 7 days, increased according to response. Maintenance dose 1.2mg /kg daily (higher dose unlikely to be beneficial).
Maximum 1.8mg/kg per day; maximum 120mg per day

Child 6-17 year (body-weight 70kg and above)
Initially 40mg daily for 7 days, increased according to response; maintenance dose 80mg daily; maximum 120mg daily.

Note: Total daily dose may be given either *as a single dose in the morning* or *in 2 divided doses with last dose no later than early evening*.

Note: In those with hepatic impairment, halve dose in moderate liver disease; quarter dose in severe liver disease.

Dexamfetamine **CD 2**

Preparations: Tablets 5mg.

Dosage: *Refractory ADH:*

**Initiated by specialist*

Child 6 -17 years:

Initially 2.5mg 2 -3 times a day, increased in steps of 5mg once weekly if required increased if needed necessary up to 1mg/ kg daily.

Maintenance: dose up to 20mg daily, up to 40mg may occasionally be required.

Methylphenidate Hydrochloride **CD 2**

Preparations: Standard release tablets 5mg, 10mg, and 20mg.

Modified release tablets include Concerta® XL (18mg, 27mg, 36mg and 54mg) and

Equasym® XL (10mg, 20mg, and 30mg)

Dosage: **Initiated by specialist*

Standard release tablets (5mg, 10mg, 20mg) **CD 2**

Child 4-5 years:

Initially 2.5mg twice daily increased if necessary (max 1.4mg/kg daily) discontinue if no response in 1 month, suspend treatment every 1-2 years to assess condition.

Child 6 – 17 years:

Initially 5mg 1-2 times daily, increased if necessary at weekly intervals by 5-10mg daily to a max. 60mg daily in divided doses – increased if necessary up to 2.1 mg/kg daily in 2 -3 divided doses.

Higher dose (up to a maximum of 90mg daily) under direction of specialist.

Discontinue if no response in 1 month, suspend treatment every 1-2 years to assess condition.

Note: If effect wears off in evening (with rebound hyperactivity) a dose at bedtime may be appropriate (establish need with trial bedtime dose)

Concerta® XL (18mg and 36mg) **CD 2**

Child 6-17 years old:

Initially 18mg once daily (in the morning) increased if necessary in weekly steps of 18mg according to response. Increased if needed up to 2.1 mg/ kg daily. Max 54mg once daily.

To be increased to higher dose only under specialist Discontinue if no response in 1 month; Maximum 108 mg daily. , suspend every 1-2 years to assess condition.

Note: Concerta® XL 18mg once daily is equivalent to total daily dose of 15mg of standard release methylphenidate.

Equasym® XL (10mg, 20mg, and 30mg) **CD 2**

Child 6-17 years old:

Initially 10mg once daily in the morning before breakfast increased gradually at weekly intervals if necessary up to 2.1 mg/ kg daily; max 60mg daily. To be increased to higher dose only direction of specialist;

discontinue if no response in 1 month, suspend every 1-2 years to assess condition. Maximum 90mg daily
Note: For example, 20mg of Equasym XL is intended to take the place of 10mg at breakfast and 10mg at lunch of standard release methylphenidate[6]

Tricyclic Antidepressant Drugs (TCAs)

Imipramine Hydrochloride

Preparations: Tablets 10mg and 25mg

Dosage: **Under specialist supervision*
Child 6-17 years:
10-30mg twice daily

3. Bipolar disorder

Antimanic drugs

Bipolar illness with an onset in childhood or adolescence has a poorer prognosis than adult-onset illness.[2] Three or more untreated episodes may lead to cognitive impairment. The more episodes, the more difficult they are to treat. It is important to start treatment early and monitor for the development of suicidal behaviour. Valproate is usually the medication of first choice, followed by lithium and then carbamazepine. Adolescents often respond poorly to monotherapy and more than one drug may be required to control symptoms. Once symptomatic improvement occurs, treatment should be continued for at least 2 years to prevent relapse. Poor treatment response and recurrence are common.[2]

Valproic acid and Sodium Valproate:

Valproate should be avoided in females of childbearing potential. Valproic acid (as a semisodium salt: Depakote®) may be useful in children unresponsive to lithium. Sodium valproate has also been used and the modified release, Epilim Chrono®, may be used when nausea is a problem.

Semisodium Valproate

Preparations:	Tablets (Depakote®) 250mg, 500mg
Dosage:	N.B. The range of the dose has been suggested in some Articles (refer to References 9 and 10), but robust evidence is not available.

Sodium Valproate

Preparations:	Tablets crushable 100mg; tablets e/c 200mg, 500mg; oral solution 200mg/5ml. Modified release tablets (Epilim Chrono®) 200mg, 300mg, and 500mg
Dosage:	*Note: there is no dose stated in the cBNF for this indication. Please confer with your consultant*

Lithium Carbonate

The objective is to adjust the dose to achieve a serum lithium concentration of 0.4-1mmol/litre. Blood samples for measurement of serum lithium concentration should be taken before a dose is due and not less than 12 hours after the previous dose.

Initial titration involves adjusting the dose to achieve a serum lithium concentration of 0.4-1mmol/litre 12 hours after a dose on days 4-7 of treatment, then every week until dosage has remained constant for 4 weeks and every 3 months thereafter. Doses are divided throughout the day, but once daily administration is preferred when serum lithium concentration is stabilised.

Preparations:

Camcolit 250® tablets f/c (Li^+ 6.8mmol), Camcolit 400® tablets f/c, m/r (Li^+ 10.8mmol):	***Child 12-17 years:*** Treatment: Initially 1-1.5g daily, adjusted to achieve a serum conc. of 0.4 -1. mmol/L. Prophylaxis: initially 300- 400mg daily.
Priadel®Tablets m/r: 200mg (Li^+ 5.4mmol), 400mg (Li^+ 10.8mmol):	***Child 12-17 years:***

*Note: Although there is no treatment doses stated in the cBNF for this brand, the lithium salt equivalence is the same as in **Camcolit®**; therefore similar treatment regimen as in Camcolit® can be followed.*

Liskonum ® tablets 450mg f/c, m/r (Li^+ 12.2mmol):

Child 12-17years:
Treatment: 225-675mg twice daily.
Prophylaxis: initially 225- 450mg twice daily.

Lithium Citrate

Dosage: Adjust the dose to achieve a serum lithium concentration of 0.4-1mmol/litre Usual taken twice daily.

Preparations: **Li-liquid®**
Oral solution 509mg/5ml.
Priadel®
Liquid 520mg/5ml.

Dosage: As described under lithium carbonate above.

Bioavailability:

- *Preparations vary widely in bioavailability, changing the preparation requires the same precautions as initiation.*
- *For Li-LiquidLithium carbonates 200mg ≡ lithium citrate 509mg.*
- *"The half-life of lithium (including liquid preparations) varies considerably, but generally is considered to be about 12 to 24 hours following a single dose." [8,13] The half-life is however increased for example in those with renal impairment and with age, and may increase significantly during long-term therapy.[8,13] Therefore the half-life may be shorter in children.*

Carbamazepine

May be used for the prophylaxis of bipolar disorder (manic-depressive disorder) in children unresponsive to lithium; it seems to be particularly effective in those with rapid cycling manic-depressive illness (4 or more affective episodes per year).

Preparations: Tablets 100mg, 200mg, and 400mg; chewable tablets 100mg and 200mg; liquid 100mg/5ml.
Modified release tablets: 200mg, 400mg

Dosage: *Mood stabilisation:*
Child 1 month- 11 years:
Initially 5mg/kg at night or 2.5mg/kg twice daily, increased as needed in steps of 2.5-5mg/kg every 3-7 days; usual maintenance dose 5mg/kg 2-3 times daily; increased up to 20mg/kg daily.
Child 12- 17 years:
Initially 100-200mg 1-2 times daily, increased slowly to usual maintenance dose 200-400mg 2-3 times daily; in some cases doses up to 1.8g daily may be needed.

Other drugs

Lamotrigine

Preparations: Tablets 25mg, 50mg, 100mg, 200mg; dispersible tablets 2mg, 5mg, 25mg, 100mg

Dosage: Doses can vary, please confer with your consultant
Note: Possible effective in mania but better efficacy in bipolar depression[2]

Atypical Antipsychotic drugs

Olanzapine

Preparations: Tablets 2.5mg, 5mg, 7.5mg, 10mg, 15mg and 20mg;
Orodispersible tablets 5mg, 10mg, 15mg and 20mg.

Dosage:

Combination therapy for mania:
Child 12-17 years:
Initially 5-10mg daily adjusted to usual range of 5-20mg daily; dose greater than 10mg daily only after reassessment; max 20mg daily.

Monotherapy for mania:
Child 12-17 years:
15mg daily adjusted to usual range of 5-20mg daily; dose greater than 15mg daily only after reassessment; max 20mg daily.
Note: When one or more factors present that might result in slower metabolism (e.g. female gender, non-smoker) consider lower dose and more gradual dose increase.

4. Depression

NICE CG 28 (updated September 2017) recommends that antidepressant medication not be offered to a child or young person with moderate to severe depression except in combination with a concurrent psychological therapy

Hyponatraemia and antidepressant therapy:
Hyponatraemia (possibly due to inappropriate secretion of antidiuretic hormone) has been associated with all types of antidepressants; however, it has been reported more frequently with SSRIs than with other antidepressants. The CSM has advised that hyponatraemia should be considered in all patients who develop drowsiness, confusion, or convulsions while taking an antidepressant.[1]

Selective serotonin re-uptake inhibitors (SSRIs)

CSM advice (depressive illness in children and adolescents)[1]:
The CSM has advised that the balance of risks and benefits for the treatment of depressive illness in individuals under 18 years is considered unfavourable for the SSRIs **citalopram, escitalopram, paroxetine, sertraline, mirtazapine and venlafaxine.** Clinical trials have failed to show efficacy and have shown an increase in harmful outcomes. However, it is recognised that specialists may sometimes decide to use these drugs in response to individual clinical need; children and adolescents should be monitored carefully for suicidal behaviour, self-harm or hostility, particularly at the beginning of treatment. ***** Only **fluoxetine** has been shown in clinical trials to be effective for treating depressive illness in children and adolescents. However, it is possible that, in common with the other SSRIs, it is associated with a small risk of self-harm and suicidal thoughts. Overall, the balance of risks and benefits for fluoxetine in the treatment of depressive illness in individuals under 18 years is considered favourable, but children and adolescents must be carefully monitored as above.

While noting the above advice, we have included citalopram and sertraline in this document in line with their licensed indications

***Fluoxetine**

Preparations: Capsules 20mg; liquid 20mg/5ml

Dosage: ***Child 8 --17 years:***
10mg once daily increased after 1 week (see notes below) if necessary, max. 20mg once daily (exceptionally, up to 40mg once daily; higher doses may be considered in older children or higher body weight or in severe illness).

Note: Fluoxetine has a long duration of action; consider the long half-life when adjusting the dose (or in overdosage).

NICE clinical guidance 28 (September 2005, updated September 2017): Depression in children and young people has recommended that:
- Increasing the dose to 20mg daily after 1 week if clinically necessary is appropriate, although lower doses should be considered in children of lower body weight.[3]
- If treatment with fluoxetine is unsuccessful or is not tolerated because of side effects, consideration should be given to the use of another antidepressant. In this case sertraline or citalopram are the recommended second-line treatments.[3]

Citalopram

Preparations: Tablets 10mg, 20mg, and 40mg; oral drops 40mg/ml.

Dosage: ***Child 12-17years:***

Initially 10mg once daily, increased if necessary to 20mg once daily over 2-4 weeks; max. 40mg once daily.
Note: 8 mg (4 drops) of citalopram oral drops may be considered to be equivalent in therapeutic effect to 10 mg citalopram tablets.

Sertraline

Preparations: Tablets 50mg and 100mg

Dosage: ***Child 12-17 years:***
Initially 50mg once daily increased if necessary in steps of 50mg daily at intervals of at least a week; max. 200mg once daily.

Tricyclic Antidepressant drugs (TCAs)

The safety and efficacy of tricyclic antidepressant drugs in the treatment of depression in children has not been established. Treatment should be managed by appropriate specialist and should involve psychotherapy.

Amitriptyline Hydrochloride

Preparations: Tablets 10mg, 25mg, and 50mg; oral solution 25mg/5ml and 50mg/5ml

Dosage: ***Child 16-17 years:***
10-25 mg 3 times daily (total daily dose may alternatively be given as a single dose at bedtime) increased gradually as necessary to 150-200mg daily.

Imipramine

Preparation: Tablets 10mg and 25mg

Dosage: *Note: that although this drug is used to treat depression, there is no dose stated in the cBNF for this indication. Please consult with the Consultant*

Nortriptyline

Preparations: Tablets 10mg and 25mg

Dosage: ***Child 12-17 years:***
Low dose initially increased as necessary to 30-50mg daily in divided doses or as a single dose; max. 150mg daily.

5. Nocturnal enuresis

Posterior pituitary hormones and antagonists

Desmopressin

CSM advice[1]:
Hyponatraemic convulsions: the CSM advice that patients being treated for primary nocturnal enuresis should be warned to avoid fluid overload (including during swimming) and to stop taking Desmopressin during an episode of vomiting and diarrhoea (until fluid balance is normal). The risk of hyponatraemic convulsions can also be minimised by keeping to the recommended starting dose and by avoiding concomitant use of drugs that increase secretion of vasopressin (e.g. tricyclic antidepressants).

NICE Clinical Guideline 111 (October 2010): Nocturnal Enuresis[14]:
Recommends to offer desmopressin for the treatment of bedwetting to children and young people over 7 years and to consider desmopressin for children aged 5-7 years if treatment is required.

Preparations:

Tablets (100 micrograms and 200 micrograms).
Sublingual tablets (60 micrograms and 120 micrograms).
Nasal spray 10 micrograms/ metered spray.
Intranasal solution 100 micrograms/ ml

Dosage:

- By mouth:

Child 5-17 years (preferably over 7):
200 micrograms at bedtime, only increased to 400 micrograms if lower dose not effective; withdraw for at lease 1 week for reassessment after 3 months.

- Sublingually:

Child 5-17 years (preferably over 7):
120 micrograms at bedtime, only increased to 240 micrograms if lower dose not effective; withdraw for at least 1 week for reassessment after 3 months.

Caution:

Limit fluid intake to minimum from 1 hour before dose until 8 hours afterwards.

Note BNF for Children (2010-2011):

- *Treatment should not be continued for longer than 3 months without interrupting treatment for 1 week for full re-assessment*
- *When stopping treatment with desmopressin gradual withdrawal may be considered*
- *Desmopressin should not be given intranasally for nocturnal enuresis due to an increased incidence of side-effects.*

Tricyclic Antidepressant drugs (TCAs)

NICE Clinical Guideline 111 (October 2011): Nocturnal Enuresis[14]:
Recommends:

- Do not use tricyclics as the first line treatment for bedwetting in children and young people
- Tricyclic drug of choice is **imipramine**.
- Consider imipramine for children and young people with bedwetting who:
  - Have not responded to all other treatments and
  - Have been assess by a healthcare professional with expertise in the management of bedwetting that has not responded to an alarm and/or desmopressin
- Withdraw imipramine gradually when stopping treatment for bedwetting.

Amitriptyline Hydrochloride

Preparations: *See section 4 Tricyclic antidepressant drugs above.*

Dosage:
Child 6-11 years:
10-20 mg at night
Child 11-16 years:
25-50 mg at night

Note: max period of treatment (including gradual withdrawal) 3 months—full physical examination and ECG before further course.

Imipramine Hydrochloride

Preparations: *See section 4 Tricyclic antidepressant drugs above*

Dosage:
Child 6-7 years:
25 mg at bedtime
Child 8-10 years:
25-50 mg at bedtime
Child 11-17 years:
50-75 mg at bedtime

Note: max period of treatment (including gradual withdrawal) 3 months—full physical examination and ECG before further course.

Nortriptyline

Preparations: *See section 4 Tricyclic antidepressant drugs above.*

Dosage:
Child 6-8 years:
10 mg at night
Child 8-11 years:
10-20 mg at night
Child 11-18 years:
25-35 mg at night

Note: max period of treatment (including gradual withdrawal) 3 months—full physical examination and ECG before further course.

Note BNF for Children (2010-2011):

- *Behavioural disturbance can occur with the use of tricyclic antidepressants*
- *Relapse is common after withdrawal*
- *Toxicity following overdosage is of particular concern.*

Anticholinergics

NICE Clinical Guideline 111 (October 2010): Nocturnal Enuresis[14]:
Recommends:

- Anticholinergics not to be used alone for the management of bedwetting in children and young people.
- Consider anticholinergic + desmopressin for bedwetting in children and young people who also have daytime symptoms (overactive bladder).
- Consider anticholinergic + desmopressin for bedwetting in children and young people.
- The use of anticholinergic + desmopressin must be assessed by a healthcare professional with expertise in prescribing this combination.
- Not all anticholinergics have a UK marketing authorisation for treating bedwetting in children and young people. If a drug without a marketing authorisation for this indication is prescribed, informed consent should be obtained and documented.
- Do not offer an anticholinergic combined with imipramine for the treatment of bedwetting in children and young people.

Oxybutynin Hydrochloride

Preparations: **Tablets** (2.5mg, 3mg and 5mg).
Elixir (2.5mg/5ml)
Modified Release Tablets (5mg and 10mg).

Dosage: Nocturnal enuresis associated with overactive bladder
- By mouth:

Child 5-17 years:
2.5mg-3mg twice daily increased to 5mg 2-3 times daily (last dose before bedtime).

Tolterodine Tartrate (not licensed for use in children)

Preparations: **Tablets** (1mg and 2mg).
Modified Release Capsules (4mg).

Dosage: Nocturnal enuresis associated with overactive bladder
- By mouth:

Child 5-17 years:
1mg once daily at bedtime, increased according to response; max. 2mg twice daily

6. Obsessive Compulsive Disorder (OCD) and Body Dysmorphic Disorder (BDD)

Selective Serotonin Re-uptake Inhibitors (SSRIs)

Fluvoxamine Maleate

Preparations:	Tablets 50mg
Dosage:	***Child 8-17 years:***
	Initially 25mg daily increased if necessary in steps of 25mg every 4-7 days according to response (total daily doses above 50mg in 2 divided doses); max. 100mg twice daily

Sertraline

Preparations:	Tablets 50mg and 100mg.
Dosage:	***Child 6-11 years:*** Initially 25mg once daily increased to 50mg daily after one week; further increased if necessary at steps of 50mg daily at intervals of at least 1 week; max. 200mg once daily ***Child 12-17 years:*** Initially 50mg once daily increased if necessary in steps of 50mg over several weeks; usual range 50-200mg daily.

Note: if no improvement in OCD within 12 weeks, treatment should be reconsidered.

7. Schizophrenia

Atypical Antipsychotic Drugs

NICE Clinical Guidance 155 (Psychosis and schizophrenia in children and young people: recognition and management) recommends the following:
When transient or attenuated psychotic symptoms or other mental state changes associated with distress, sustained impairment in functioning, or help seeking behaviour by the child or young person (or their parent or carer) are not sufficient for a diagnosis of psychosis or schizophrenia:

- Consider individual cognitive behavioural therapy with or without family intervention, and
- Offer treatments recommended in NICE guidance for those with any of the anxiety disorders, depression, emerging personality disorder, or substance misuse.
- Do not offer antipsychotic medication:
  - For psychotic symptoms or mental state changes that are not sufficient for a diagnosis of psychosis or schizophrenia, or
  - With the aim of decreasing the risk of psychosis.

Amisulpride

Preparations: Tablets 50mg, 100mg, and 200mg; oral solution 100mg/ml.

Dosage:

Acute psychotic episode:
Child 15-17 years:
200-400mg twice daily adjusted according to response; max. 1.2g daily
Predominantly negative symptoms:
Child 15-18 years:
50-300mg daily

Clozapine

Preparations: Tablets (Clozaril®) 25mg and 100mg

Note: patient, prescriber and supplying pharmacist must be registered with the Clozaril® Patient Monitoring Service.

Dosage:

Schizophrenia in patients unresponsive to, or intolerant of conventional antipsychotic drugs:
Child 12-17 years:
12.5mg once or twice daily on first day then 25-50mg on second day then increased gradually (if tolerated) in steps of 15-50mg daily over 14-21 days up to 300mg daily in divided doses (larger doses at night, up to 200mg daily may be taken as a single dose at bedtime); if necessary may be further increased in steps of 50-100mg once (preferably) or twice weekly; usual dose 200-450mg daily (max. 900mg daily).

Note: restarting after interval of more than 2 days, 12.5mg once or twice on the first day (but may be more feasible to increase more quickly than on initiation) — extreme caution if previous respiratory or cardiac arrest with initial dosing.

Olanzapine

Preparations: Tablets 2.5mg, 5mg, 7.5mg, 10mg, 15mg and 20mg; Oro-dispersible tablets 5mg, 10mg, 15mg and 20mg

Dosage:

Schizophrenia

Child 12-17years:

Initially 5-10mg dailsy adjusted to usual range of 5-20mg daily; dose greater than 10mg daily only after reassessment; max 20mg daily.

Note: When one or more factors present that might result in slower metabolism (e.g. female gender, non-smoker) consider lower dose and more gradual dose increase.

Quetiapine

Preparations: Tablets 25mg, 100mg, 150mg, 200mg, and 300mg

Dosage:

Schizophrenia:

Child 12-17 years:

Initially 25mg twice daily adjusted in steps of 25-50mg according to response; max. 750mg daily

Risperidone

Preparations: Tablets 500 micrograms, 1mg, 2mg, 3mg, 4mg, and 6mg; orodispersible tablets (Quicklet®) 500micrograms, 1mg, 2mg 3mg, 4mg; liquid 1mg/ml.

Dosage:

Acute and chronic psychosis:

Child 12-17 years:

2mg in 1-2 divided doses on first day then 4mg in 1-2 divided doses on second day (slow titration is required in some children); usual dose range 4-6mg daily; doses above 10mg daily only if benefit considered outweighing risk (max. 16mg daily).

Aripiprazole

Preparations: Tablet 5mg, 10mg, 15mg, 30mg; Orodispersible tablets 10mg, 15mg; Oral solution 1mg/ml

Dosage:

Schizophrenia:

In adolescents 15 -17 years:

Initially 2mg once daily for 2 days (using the oral solution 1mg/ml), then 5mg once daily for 2 days, then 10mg daily.
The recommended dose is 10mg/day administered on a once-a-day schedule without regard to meals.
When appropriate, subsequent dose increases should be administered in 5mg increments without exceeding the maximum daily dose of 30mg.

8. Tourette syndrome/ tic disorders

Haloperidol

Preparations: Tablets 500 micrograms, 1.5mg, 5mg, and 10mg; Capsules 500micrograms; oral liquid 1mg /ml.

Dosage:

Child 3-12 years:
Initially 250 micrograms daily in 2 -3 divided doses; usual dose 0.5 -3mg daily. Maximum 3mg daily (in 2-3 divided doses).

Child 13-17 years:
Initially 250 micrograms in 2- 3 divided doses; ususal dose 2 -6 mg daily. Maximum 6mg daily in 2 -3 divided doses).

Sulpiride

Preparations: Tablets 200mg and 400mg; solution 200mg/ 5ml.

Dosage:

Child 2-11 years:
50-400 mg twice daily
Child 12-17 years:
100-400mg twice daily

9. Insomnia

Hypnotics

The prescribing of hypnotics to children, except for occasional use such as for night terrors and somnambulism (sleep walking), is not justified. Melatonin is a pineal hormone and may be of value of treating sleep disorders in children with conditions such as visual impairment, cerebral palsy, attention deficit hyperactivity disorder, and autism. Chloral hydrate and derivatives were formerly popular hypnotics for children. Triclofos causes fewer gastro-intestinal disturbances than chloral hydrate.

Melatonin

Preparations[5]: Capsules 1mg, 2mg, 2.5mg, 3mg, 5mg and 10mg named patient; lozenges (sublingual tablets) 3mg.
Note: All preparations are for named patient only.

Dosage: **Initiated and supervised by a specialist*
Children 1 month-18 years:
Initial dose 2-3mg given 30-60 minutes before bedtime, if no improvement in 1-2 weeks, increase the dose to 4-6mg at night; max. 10mg (but higher doses have been used)[1].

Temazepam CD

Preparations: Tablets 10mg, 20mg; oral solution: 10mg/5ml

Dosage: *Note: that although this drug is used to treat insomnia, there is no dose stated in the cBNF for this indication. Please confer with your consultant.*

Zopiclone

Preparation: Tablets 3.75mg, 7.5mg

Dosage: *Note: that although this drug is used to treat insomnia, there is no dose stated in the cBNF for this indication. Please confer with your consultant.*

10. Emergency (Rapid) Tranquillisation

Aggressive behaviour includes verbal hostility, threats and intimidation and overt physical violence. [7] No matter what the cause, the principles of the acute management are the same. The triggers and maintaining factors can be tackled after the patient, staff and other young people are all safe. For guidance on assessment and management of the patient refer to **"The Trust Policy for the use of Emergency (Rapid) Tranquillisation in Child and Adolescent Mental Health Services"**.[7]

Lorazepam

Preparations: Tablets 1mg; injections 4mg/ml.

Dosage:

By mouth
Child <12 years
0.5-1.0mg (max. 4mg/day)
Child >12 years
0.5-2mg (max. 4mg/day)
By intramuscular injection
Child 1 month-12 years
0.5mg-1mg (0.05-0.1mg/kg) (max. 4mg/day) repeat after 30 minutes if necessary
Child >12 years
1mg-2mg (max. 4mg/day) repeat after 30 minutes if necessary

Risperidone

Preparations: Orodispersible tablets (Quicklet®) 500 micrograms, 1mg, 2mg, 3mg, 4mg

Dosage:

Child 12-18 years
0.5-2mg

Haloperidol

Preparations: Tablets 500micrograms, 1.5mg, 5mg, and 10mg; Capsules 500 micrograms; oral liquid 1mg /ml; injection 5mg/ml.

Dosage:

By mouth
Child<12 years
0.5mg-mg (max. 10mg/day)
Child >12 years
1-2mg (max 15mg/day)
By intramuscular injection
Child <12 years
0.5-1mg (max. 10mg/day) repeat after 30 minutes if necessary
Child >12 years
1-5mg (max.15mg/day) repeat after 30 minutes if necessary

Procyclidine

Preparations: Tablet 5mg; oral solution 2.5mg/5ml, 5mg/5ml; injection 5mg/ml

Dosage:

By mouth
Child < 14 years
1.25mg
Child >14 years
2.5mg

By intramuscular or intravenous injection
Child<10 years
2-5mg repeat after 30 minutes if necessary
Child >10 years
5-10mg repeat after 30 minutes if necessary

Olanzapine

Preparations: Tablets 2.5mg, 5.7mg, 5mg, 10mg, and 15mg; orodispersible tablets 5mg, 10mg, and 15mg

Dosage: By mouth
Child > 12 years
5mg (tablet or velotab)

Trimeprazine/Alimemazine

Preparations: Tablets 10mg; oral Solution 7.5mg/5ml, 30mg/5ml

Dosage: 30mg (max 90mg/day)

Flumazenil*

Preparations: Injection 100micrograms/ml

Dosage: By intravenous injection
Child 1 month-12 years
10 micrograms/kg (max. single dose 200 micrograms) repeated at 1 minute intervals if required; max. total dose of 40 micrograms/kg (1mg) (2mg in intensive care)
Child 12-18 years
200 micrograms, repeated at 1minute intervals if required; max. total dose 1mg (2mg in intensive care)

**Note: For further information refer to the CAMHS Rapid Tranquillisation Policy*

11. References

1. British National Formulary for children 2016 - 2017.

2. The Maudsley Prescribing Guidelines, 12th Edition, 2015.

3. NICE clinical guidance 28 (CG 28): Depression in children and young people; September 2005.

4. NICE technological appraisal 98 (TA 98): Methylphenidate, atomoxetine and dexamfetamine used for attention deficit hyperactivity disorder (ADHD) in children and adolescents; March 2006.

5. Pocket Medicines for Children, Royal College of Paediatrics and Child Health, Neonatal and Paediatric Pharmacist Group, 2003.

6. Summary of Product Characteristics: Equasym XL 10mg, 20mg, or 30mg Capsules; March 2014

7. Trust Policy for use of Emergency (Rapid) Tranquillisation in Child and Adolescent Mental Health Services, 2007

8. Summary of Product Characteristics: Liskonum Tablets 450 mg lithium carbonate (12.2 mmol Li^+) in controlled-release form; Aug 2006

9. Delbello MP, Schwiers ML, Rosenberg HL et al. A double-blind, randomised, placebo-controlled study of quetiapine as adjunctive treatment for adolescent mania. Journal of the American Academy of Child and adolescent Psychiatry, 2002 Vol 41 (10) p1216-23; 2002

10. Kowatch RA, Suppes T, Carmody TJ et al. The effect size of lithium, divalproex sodium, and carbamazepine in children and adolescents with bipolar disorder. Journal of the American Academy of Child and Adolescent Psychiatry, 2000 Vol 39 (6) p 713-720; 2000

11. Barnet, Enfield and Haringey Mental Health NHS Trust. Aripiprazole Prescribing Guidelines, 2007

12. Summary of Product Characteristics: Aripiprazole, orodispersible tablets, oral solution; February 2008

13. Summary of Product Characteristics: Priadel200mg and Priadel 400mg tablets; June 2015

14. NICE Clinical Guidance CG 111: Nocturnal enuresis - The management of bedwetting in children and young people; October 2010.

15. NICE Clinical Guidance CG155: Recognition and Management of Psychosis and Schizophrenia in Children and Young People (CG 155 –Jan 2013)

16. NICE Clinical Guidance CG 158 Antisocial behaviour and conduct disorders in children and young people: recognition, intervention and management

12. Monitoring

Barnet, Enfield and Haringey Mental Health Trust will ensure that regular Monitoring of all policies takes place annually at the Policy Development Group and also at the Clinical Governance Sub Committee, to ensure compliance and maintain quality standards as in keeping with safe Clinical Practice. The NHSLA Standards for policy formatting will be used and the dates for review will be governed by the front-page entries.

Ward/ Team Managers will use the Policy Monitoring Form to collate information regarding the reviewed or new policy and confirm that all staff are aware of Trust Policies. The Policy Monitoring Form will be available on the intranet. Managers will be required to submit this Information to the Lead Nurse Education and Practice Development on a two monthly basis.

13. Appendix 1

THE USE OF UNLICENSED MEDICINES OR LICENSED MEDICINES FOR ULICENSED APPLICATIONS IN CHILD AND ADOLESCENTS MENTAL HEALTH SERVICES.

Adapted from policy statement produced by the joint RCPCH and NPPG Standing Committee on Medicines.

This statement has been drawn up by the Standing Committee on Medicines, a joint committee of the Royal College of Paediatrics and Child Health and the Neonatal and Paediatric Pharmacists Group. It aims to inform and guide health professionals and parents who prescribe, dispense or administer medicines for children, and health service managers who have a responsibility to support them. The statement forms part of the introduction to Medicines for Children, the first national paediatric formulary offering guidance on the use of therapeutic drugs given to children.

The recommendations of the Committee are that:

- Those who prescribe for a child should choose the medicine which offers the best prospect of benefit for that child, with due regard to cost.
- The informed use of some unlicensed medicines or licensed medicines for unlicensed applications is necessary in child and adolescent services.
- Health professionals should have ready access to sound information on any medicine they prescribe, dispense or administer, and its availability.
- In general, it is not necessary to take additional steps, beyond those taken when prescribing licensed medicines, to obtain the consent of parents, carers and child patients to prescribe or administer unlicensed medicines or licensed medicines for unlicensed applications.
- NHS Trusts and Health Authorities should support therapeutic practices that are advocated by a respectable, responsible body of professional opinion.

Licensing

1. The use of unlicensed medicines or licensed medicines for unlicensed applications is necessary in child and adolescent services when there is no suitable alternative. Such uses are informed and guided by a respectable and responsible body of professional opinion.

2. The Medicines Act and Regulations (which incorporate the relevant EC directives) provide exemptions that enable doctors to:

- Prescribe unlicensed medicines;
- Use in particular (named) patients, unlicensed products specially prepared, imported or supplied;
- Use medicines which are not authorised to be marketed, in clinical trials, after approval of the trial by the Medicines Control Agency (MCA) either through the Doctors and Dentists Exemption Scheme or, in the case of pharmaceutical industry sponsorship, through the Trials Certificate (Exemption) Scheme;
- Use or advise the use of licensed medicines for indications, or in doses, or by routes of administration, outside the recommendations of the license;
- Override the warnings and the precautions given in the license.

3. In each case, the doctor has to be able to justify the action taken as being in accordance with a respectable, responsible body of professional opinion.

Sources of information

4. Doctors and pharmacists who work with children have written a book called the British National Formulary for Children (BNFC), it is a joint publication if the British Medical Assassination, the Royal College of Paediatrics and Child Health, and the Neonatal and Paediatric Pharmacist Group, the BNFC is published under the authority of a paediatric Committee.

These sources that can be sought:

1. The British national formulary for children.
2. The trust formulary that has been produced by pharmacist and CAMHS clinicians to support prescribers within in our CAMH services.
3. Pocket Medicines for Children, RCPCH and NPPG 2003.

Information for other health professionals and the public

5. Parents, patients and teachers, and others in loco parentis, require information about medicines from health professionals, including general practitioners, paediatricians, nurses, health visitors, and pharmacists. The information must be given in a way they can understand, and be accurate and consistent. This is particularly important when the specialist who has advised the use of unlicensed medicines or licensed medicines for unlicensed applications, hands over the care of the patient and responsibility for the administration of the medicine to someone else. Given the complexity of therapeutic and pharmacological information, and the burdens upon those giving and receiving it, the need is for sound, practical and sensible arrangements for communication, supplemented by readily available sources of reference.

It is essential that health professionals should have ready access to sound information on any medicine they prescribe, dispense or administer, and on its availability.

Consent of parents, carers and patients

6. Health professionals must respect the right of child patients and their parents to participate in decisions on the health care of the child, and seek to ensure that those decisions are properly informed. In normal paediatric practice no additional steps, beyond those taken when prescribing licensed medicines, are required to obtain the consent of patients and parents / carers for the use of unlicensed medicines.

7. Clinicians are anxious that the license status of a drug should not be perceived as reflecting what is or is not best for the child. They are mindful of a possible impact upon the confidence of parents and patients who might then be reluctant to accept advice, with consequences for a child who might not receive a medicine that offers benefit.

8. Most licensed medicines are dispensed in standard packages together with a Patient Information Leaflet (PIL) approved by the Licensing Authority. When the license does not include indications for children, the PIL may caution against such use. Naturally, this may undermine confidence in the advice given by health professionals, besides provoking a call for explanation. The Royal College of Paediatrics and Child Health has produced two generic PILs, for patients and parents / carers respectively, which explains why it may be necessary to prescribe unlicensed medicines or to use licensed medicines for unlicensed applications. This leaflet will be made widely available to hospitals and pharmacies and may be of practical value in such situations.

9. There are circumstances when a clinician will decide to give fuller information than are usually judged necessary. These may arise when a medicine is new or experimental; or carries known or possible risks of harm, even if those risks are small in relation to the disorder to be treated; or when the concerns of some parents, carers or patients generate a need for more detailed discussion and explanation on the medicines that are prescribed. In each instance, practice is guided by clinical judgment.

We consider that in general it is not necessary to take additional steps, beyond those taken when prescribing licensed medicines, to obtain the consent of parents, carers and child patients to prescribe or administer unlicensed medicines or licensed medicines for unlicensed applications.

Policies of NHS Trusts

10. Some NHS Trusts have suggested that a clinician should not use an unlicensed medicine, or a licensed medicine for unlicensed application. In 1993 the Department of Health stated that it would not

expect that a health authority would seek to fetter a clinician's freedom to prescribe by expressly directing its medical staff against prescribing unlicensed products or licensed products for unlicensed purposes. The Department of Health's lawyers also stated that, should a health authority so direct its medical staff, a court would be reluctant to support the authority in those circumstances.

11. However the emphasis on risk management and evidence based medicine in Clinical Governance's framework implies that Trusts may be encouraged to introduce systems and protocols to monitor, and even direct, the use of both licensed and unlicensed medicines. We understand that, because the Medicines Acts (1968) exemptions remain current, the courts would not hold the prescription of an unlicensed medicine to be a breach of the duty of care, if that treatment was supported by a respected body of medical opinion. The best evidence available should always inform the prescription of medicines for children.

We consider that NHS Trusts should support therapeutic practices that are advocated by a respectable, responsible body of professional opinion.

References:

British Paediatric Association. A paediatrician's guide to the UN Convention on the Rights of the Child. London: British Paediatric Association, 1995.

A Report of the Joint Working Party of the British Paediatric Association and the Association of the British Pharmaceutical Industry. Licensing Medicines for Children. London: Royal College of Paediatrics and Child Health,1996.

The General Medical Council. Good Medical Practice. London: The General Medical Council, 1998.

The General Medical Council. Seeking patients' Consent: the ethical considerations. London: The General Medical Council, 1999.

Department of Health. Letter to the President, British Paediatric Association, 3 November 1993. Department of Health.

14. Appendix 2

Abbreviations and Symbols

CD The Misuse of Drugs Act 1971 controls “dangerous or otherwise harmful drugs” which are designated as “Controlled Drugs”. This prohibits the possession, supply, manufacture, import or export of controlled drugs except as allowed by regulations or by license from the Secretary of State. The Misuse of Drugs Regulations (2001) permits the use of Controlled Drugs in medicine. For further guidance on prescribing CDs, refer to the British National Formulary/ British National Formulary for Children