BNFC BNF for Children

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Depression in children

CASE STUDY

2020-21

Jenny is a 14 year old teenager who has gradually become withdrawn over the past 2 months, no longer participating in the activities she used to enjoy. Her friends have noticed Jenny's persistently low mood and that she has been missing school on a regular basis. Her teachers have noticed her frequent absence from school, scruffy presentation and lack of concentration; worried about Jenny they have alerted her mother. These features have been present on most days during the 2 month period, progressively becoming worse. Her mother had initially thought Jenny was staying up late and studying due to increased demands from school and exam preparation, unaware that Jenny was persistently exhausted and had stopped socialising with her friends.

What are the core symptoms of depression?

Core symptoms of depression are a persistently low mood, loss of interest in normal activities, and feeling deflated with little or no energy. These negative feelings and thoughts interfere with daily life becoming an illness. The presence of a single core symptom for more than 2 weeks warrants investigation for any associated symptoms of depression.

The **BNF *for Children* depression treatment summary** contains further information

Which symptoms has Jenny shown that indicate possible depression?

Jenny has shown all three core symptoms for a significant period of time.

Which tool is used to diagnose depression in children and adolescents and how is it used?

The International Statistical Classification of Diseases (ICD-10) is used for diagnosis. The severity of depression is classed by the number of depressive symptoms (including at least one core symptom). Under ICD-10, depression can be classified as mild (4 symptoms), moderate (5-6 symptoms) or severe (7 or more symptoms, with or without psychotic symptoms).

How would you class Jenny's depression severity? As an adolescent female, is Jenny more likely to be affected?

Jenny has the associated symptoms of poor concentration at school and diminished sleep resulting in tiredness which, combined with her core symptoms, indicates moderate depression. Children and adolescents can all be affected by depression, adolescent girls like Jenny are twice as likely to be affected than their male counterparts.

After 2 weeks her mother noticed Jenny's increasing weight loss and pale appearance which prompted her to contact the GP. During the appointment, Jenny's GP undertook a full history and examination and recognised conceivable signs of depression with the addition of reduced appetite. Medically she has no other presenting or past conditions and does not take any regular medicines. She denies any use of alcohol or drugs. She did mention not wanting to go to school because of previous bullying and emotional abuse from another school pupil. She was diagnosed with moderate depression with 6 features.

What is the most probable cause of Jenny's distress?

Bullying and emotional abuse.

Mild depression is amenable to psychological interventions, however, in Jenny's case moderate depression may require a combination of psychological therapy and drug treatment.

What are the aims of treatment?

The goals of therapy are to positively improve symptoms and mood, prevent illness from returning and support the person in leading a normal life.

As part of a shared decision plan, Jenny is not keen on medical intervention involving drug treatment. She would like to know what non-pharmacological therapies are available to her and how they can help.

What are the non-pharmacological options for managing depression?

Non-drug treatment options include lifestyle changes and psychological therapy. Lifestyle changes include advice about good sleep hygiene to improve sleep outcomes, anxiety management, nutrition and healthy eating; and regular exercise following a structured programme to keep the body and mind focused on tasks. Options for psychological therapy could include cognitive behavioural therapy (either individual or group therapy where patients are taught to change their ways of unhelpful and negative thinking during depression and replace these with positive actions) or interpersonal psychotherapy (this helps patients deal with the social aspects of their depression).

Information on the non-pharmacological management of depression can be found in the treatment summary for **depression** in the BNF *for Children*

After 6 sessions of cognitive behavioural therapy (CBT) and lifestyle changes, Jenny's therapist and mother noticed a partial response, however, Jenny had increased episodes of being tearful throughout the sessions. These sessions have helped Jenny admit she needs further support.

When would pharmacological intervention be prescribed and what would be the most suitable first-line option to prescribe?

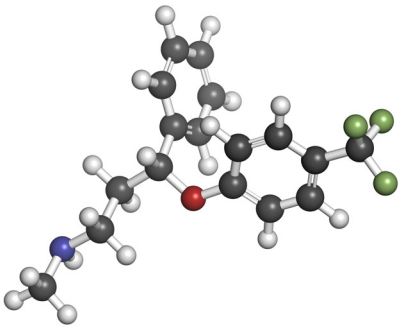
Following a multi-disciplinary review, children aged over 12 years with moderate to severe depression can be considered for combination therapy if their depression has been unresponsive to a specific psychological therapy after 4-6 sessions.

See **NICE guidance** for further information

The first-line option would be a selective serotonin reuptake inhibitor (SSRI). SSRIs are generally well tolerated compared to other classes of antidepressants. Fluoxetine is licensed in the UK for moderate to severe depression in children from 8 years of age and is available as an oral solution, dispersible tablets or capsules.

As a shared decision, Jenny agrees to start medication but has some questions. She is anxious and wants to know how long it will take for the medicine to work and how long she will need to take it for.

When can Jenny expect to see an improvement in her symptoms, and how long will she need to take fluoxetine?



Once initiated, Jenny should notice improvement in her mood and symptoms by 4-6 weeks of continuous therapy with fluoxetine. Once Jenny is in remission, which is the point where she has been symptom-free and fully functional for 8 weeks without any relapses of depression, she should continue taking fluoxetine for at least a further 6 months.

Tolerability is key to adherence with medication, as intolerable side-effects may result in discontinuation and treatment failure. Therefore, it is important that a shared decision is based on the communication of full information on use, dosage, duration of therapy and side-effects. On discontinuation, fluoxetine does not need to be tapered due to its very long half-life compared to other antidepressant medicines.

What information would you give Jenny and her mother about the side-effects of fluoxetine?

Prewarning Jenny of common side-effects and what to expect can help treatment success and ensure adherence. Common side-effects include anxiety, changes in appetite, arthralgia, stomach upset, vomiting, diarrhoea, constipation, taste disturbances, headache, dry mouth, dizziness and drowsiness to name a few. It is important to mention that although these are listed effects in the patient information leaflet, each patient is different and Jenny may not experience many.

Her mother is also concerned after reading on the internet that these drugs can cause many side-effects and even thoughts of suicide.

There is a link between suicidal thoughts and behaviour with use of SSRI's in this age group, and early identification of such ideas and behaviours through careful monitoring and surveillance is key. Close contact with a healthcare professional and establishing a support network with family and friends would be recommended. As fluoxetine has a very long half-life, its effects would not immediately disappear from the body system on cessation, therefore, such risks can continue for many weeks after stopping therapy.

Further information can be found in the **Fluoxetine** drug monograph in the BNF *for Children*

Jenny is concerned that fluoxetine may not work for her.

What other treatment options are there for treating depression?

There are other SSRI options including citalopram and sertraline. These are used in an off-label capacity in the UK as they are not licensed for children under 18 years of age. However, they are supported by a strong evidence base. Antipsychotic medications may be added under specialist care if there is evidence for psychotic depression.

Further information including dosing for different age groups can be found in the drug monographs for **Fluoxetine**, **Citalopram** and **Sertraline** in the BNF *for Children*

Other drugs such as paroxetine, venlafaxine and tricyclic antidepressants should not be used in children with depression unresponsive to fluoxetine. Electroconvulsive therapy maybe suitable under specialist care.

She has read about a herbal product called St John's Wort available without prescription. She asks whether being natural would this not be better? What would you advise to Jenny and her mother?

St John's Wort is regarded as a natural product, however, clinical trials especially in children have not been conducted using St John's Wort therefore it's efficacy in treatment of depression cannot be verified. Although Jenny's mum thinks natural products are better, she needs to be made aware that natural products can cause toxicity and poisoning. In addition, St John's Wort has an unknown side-effect profile and is known to interact with a number of other drugs. Evidence based therapy is used when prescribing medications for treatment of depression which St John's Wort currently lacks.

BNF for Children

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