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| **Maryland Next Gen NCLEX Test Bank Project**September 1, 2022 |
| **Case Study Topic**: ( & Stand- Alone Trend) | Attention Deficit Hyperactivity Disorder (ADHD) | **Author:** | Heidi Bresee, DNP, PPCNP-BC, RNFrederick Community College |

**Case Summary**

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| Nine-year-old male with attention deficit hyperactivity disorder has associated weight loss since starting stimulant medications. Treatment focuses on interventions to improve nutritional status. |

**Objectives**

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| 1.Recognize side effects of stimulant medications2.Summarize the treatment and management options for a child with weight loss3.Plan care for the child with weight-loss4.Educate the child and family regarding nutritional interventions  |

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| **Case Study Link** | **Case Study QR Code** |
| <https://umaryland.az1.qualtrics.com/jfe/form/SV_8eu9MA94MTs2WyO> |  |
| **Trend QR Code** | **Trend Link** |
|  | [**https://umaryland.az1.qualtrics.com/jfe/form/SV\_54rWUN5iC91OzYO**](https://umaryland.az1.qualtrics.com/jfe/form/SV_54rWUN5iC91OzYO) |

**Case References**

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| 1. Marcdante, K., Kliegman, R. (2019). *Nelson essentials of pediatrics*, 8th ed. ,Elsevier, Inc.
2. Ricci, S., Kyle, T., Carman, S. (2021). *Maternity and pediatric nursing,* 4th ed., Wolters Kluwer.
3. Rudd, K., Kocisko, D. (Ed.) (2019). *Pediatric nursing: The critical components of nursing care,* 2nd ed. F. A. Davis.
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**Case Study Question 1 of 6**

A 9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
| 10/ 15. Started on 10 mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5 mg per week as tolerated.11/ 17. On maintenance dose of 30 mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |
| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 |
| T | 98.6F/37C | 98.2F/36.8C | 97.6F/36.4C |
| P | 90 | 96 | 104 |
| RR | 20 | 22 | 20 |
| BP | 99/60 | 100/58 | 108/64 |
| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA |
| Height | 49.5in | 49.5in | 50in |
| Weight | 57lbs/25.8kg | 57lbs/25.8kg | 52Lbs/23.6kg |
| BMI  | 16.7 | 16.7 | 14.6 |
| BMI for age | 54th | 54th | 15th |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30mg 1 capsule po daily |

* Which 4 findings require follow-up?
* Behavior management
* Medication administration\*
* School performance
* Appetite\*
* Sleep\*
* Pulse
* Blood pressure
* Weight\*

**Scoring Rule: 0/1**

**Rationale:** Client reports the medication side effects of decreased appetite and sleep. Reporting that medication is given first thing in the morning may mean that the medication is being given before the child has a chance to eat. The 5 pound weight loss in 3 months is significant. Reported school performance (grades) and use of behavioral management strategies are positive findings. Blood pressure and heart rate are within normal limits for age.

**Case Study Question 2 of 6**

A 9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
| 10/ 15. Started on 10 mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5 mg per week as tolerated.11/ 17. On maintenance dose of 30 mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |
| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 |
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| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA |
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| BMI  | 16.7 | 16.7 | 14.6 |
| BMI for age | 54th | 54th | 15th |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30 mg 1 capsule po daily |

* What 3 problems should the nurses address at this visit?
* Inappropriate behavior management
* Medication management\*
* Optimizing school performance
* Nutrition counseling\*
* Sleep patterns\*
* Hypertension prevention

**Scoring Rule: 0/1**

**Rationale:** The client has weight loss and sleep issues most likely related to the ADHD medications. The client needs medication teaching because they are taking the medication before they eat breakfast. The nurse does not need to address behavior management strategies because they are appropriate or optimizing school performance that is improving. The child’s B/P is normal.

**Case Study Question 3 of 6**

A 9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
| 10/ 15. Started on 10 mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5 mg per week as tolerated.11/ 17. On maintenance dose of 30 mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |
| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 |
| T | 98.6F/37C | 98.2F/36.8C | 97.6F/36.4C |
| P | 90 | 96 | 104 |
| RR | 20 | 22 | 20 |
| BP | 99/60 | 100/58 | 108/64 |
| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA |
| Height | 49.5in | 49.5in | 50in |
| Weight | 57lbs/25.8kg | 57lbs/25.8kg | 52Lbs/23.6kg |
| BMI  | 16.7 | 16.7 | 14.6 |
| BMI for age | 54th | 54th | 15th |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30 mg 1 capsule po daily |

* Which condition is the client most likely experiencing?
* Adverse drug reaction
* Side effects of medication\*
* Noncompliance with medication use
* Drug dependency

**Scoring Rule: 0/1**

**Rationale**: Side effects are predictable unintended responses to medications. For stimulants used to treat attention deficit hyperactivity disorders side effects include decreased appetite, rapid weight loss and insomnia. Side effects can often be managed without discontinuing treatment. Adverse reactions are less predictable, more severe, and more likely to require discontinuing treatment. The client is having a therapeutic effect (improved behavior/school performance) on the target dose thus it is unlikely the effects are due to non- compliance. There is no evidence of drug dependency.

**Case Study Question 4 of 6**

9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
| 10/ 15. Started on 10 mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5 mg per week as tolerated.11/ 17. On maintenance dose of 30 mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |
| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 |
| T | 98.6F/37C | 98.2F/36.8C | 97.6F/36.4C |
| P | 90 | 96 | 104 |
| RR | 20 | 22 | 20 |
| BP | 99/60 | 100/58 | 108/64 |
| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA |
| Height | 49.5in | 49.5in | 50in |
| Weight | 57lbs/25.8kg | 57lbs/25.8kg | 52Lbs/23.6kg |
| BMI  | 16.7 | 16.7 | 14.6 |
| BMI for age | 54th | 54th | 15th |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30 mg 1 capsule po daily |

* For each potential intervention click to specify if it is indicated or not indicated to include in the plan of care

|  |  |  |
| --- | --- | --- |
|  | Indicated | Not Indicated |
| Obtain a detailed diet history | X |  |
| Plot height and weight on growth chart | X |  |
| Obtain daily weights |  | X |
| Review sleep hygiene | X |  |
| Discuss food likes and dislikes | X |  |
| Obtain an electrocardiogram |  | X |
| Discontinue medication immediately |  | X |

**Scoring Rule: 0/1**

**Rationale:** Important interventions for the nurse include obtaining a detailed diet history, accurately plotting height and weight on their growth chart health record, reviewing sleep habits, including the child in discussion of food choices and options for treatment. An EKG is not indicated at this time as the child does not have any respiratory or cardiac complaints and vital signs are normal. Monitoring weight over time is the preferred strategy in children. Weekly or monthly weights are sufficient. The client is showing improved ADHD symptoms on the medication. Attempts should be made to manage the symptoms before deciding if the medication needs to be discontinued.

**Case Study Question 5 of 6**

9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
| 10/ 15. Started on 10 mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5 mg per week as tolerated.11/ 17. On maintenance dose of 30 mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |
| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 |
| T | 98.6F/37C | 98.2F/36.8C | 97.6F/36.4C |
| P | 90 | 96 | 104 |
| RR | 20 | 22 | 20 |
| BP | 99/60 | 100/58 | 108/64 |
| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA |
| Height | 49.5in | 49.5in | 50in |
| Weight | 57lbs/25.8kg | 57lbs/25.8kg | 52Lbs/23.6kg |
| BMI  | 16.7 | 16.7 | 14.6 |
| BMI for age | 54th | 54th | 15th |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30 mg 1 capsule po daily |

The nurse provides dietary and sleep management counseling.

* What should the nurse teach the client about the treatment plan? Select all that apply.
* Medications should be given after breakfast\*
* Keep a strict schedule for meals and snacks
* Offer high-calorie, nutrient-dense food choices.\*
* Develop a consistent bed-time routine\*
* Consider adding nutritional supplements\*
* Avoid eating before bedtime
* Remove electronics from the bedroom\*

**Scoring Rule: +/-**

**Rationale:** Stimulant medication should be administered in the morning immediately after a healthy breakfast. Dietary modifications should focus on nutrient dense, high calorie foods and can include nutritional supplements. Establishing a bed-time routine will help with sleep. This includes removing electronics from the bedroom. Children who have appetite decreases while taking ADHD medication should be encouraged to eat when they feel hungry, possibly having a second dinner before bedtime.

**Case Study Question 6 of 6**

9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| **Nurses’ Notes** |
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| **Flowsheet** |
| Parameter | October 15 | November 17 | January 10 | February 11 |
| T | 98.6F/37C | 98.2F/36.8C | 97.6F/36.4C | 98.2F/36.8C |
| P | 90 | 96 | 104 | 128 |
| RR | 20 | 22 | 20 | 22 |
| BP | 99/60 | 100/58 | 108/64 | 104/58 |
| Pulse oximeter | 100 on RA | 99% on RA | 100% on RA | 99% |
| Height | 49.5in | 49.5in | 50in | 50 in |
| Weight | 57lbs/25.8kg | 57lbs/25.8kg | 52Lbs/23.6kg | 53lbs/24kg |
| BMI  | 16.7 | 16.7 | 14.6 | 14.9 |
| BMI for age | 54th | 54th | 15th | 21st |
| **Medications** |
| Dextroamphetamine-amphetamine long acting 30 mg 1 capsule po daily |

The client returns to the clinic a month later.

* For each finding click to indicate if the finding shows the treatment plan has been effective or ineffective.

|  |  |  |
| --- | --- | --- |
| Client Finding | Effective | Ineffective |
| Medication given after breakfast | X |  |
| Drinking protein shakes  | X |  |
| Sleeping 8 hours a night |  | X |
| Weight gain 1 pound  | X |  |

**Scoring Rule: 0/1**

**Rationale:** Giving the medication after breakfast and offering protein shakes show the teaching was effective. Gaining a pound in one month show the dietary modifications are working. Children between the ages of 8 and 10 need 10 to 12 hours of sleep a night. The nurse should focus on understanding the child’s sleep.

**Trend**

A 9-year-old male with attention deficit hyperactivity disorder is seen in the clinic for medication management.

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| P | 90 | 96 | 104 |
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| BMI for age | 54th | 54th | 15th |
| 10/ 15. Started on 10mg dextroamphetamine-amphetamine for attention deficit hyperactivity disorder. Plan to increase 5mg per week as tolerated.11/ 17. On maintenance of dose 30mg dextroamphetamine-amphetamine. Weight stable. Reports feeling better able to complete tasks. 01/10. Continues on Dextroamphetamine-amphetamine long acting 30mg 1 capsule po daily. Family using rewards as behavioral management. Taking medication first thing each morning. Grades improving. Appetite has decreased and the client has trouble sleeping.  |

* Complete the sentence from the list of drop-down options

|  |  |
| --- | --- |
| The condition that most likely explains the client’s symptoms is | an adverse drug reactionside effects of the medication\*noncompliance with medication usedrug dependence |

**Scoring Rule: 0/1**

**Rationale:** Side effects are predictable unintended responses to medications. For stimulants used to treat attention deficit hyperactivity disorders side effects include decreased appetite, rapid weight loss and insomnia. Side effects can often be managed without discontinuing treatment. Adverse reactions are less predictable, more severe, and more likely to require discontinuing treatment. The client is having a therapeutic effect (improved behavior/school performance) on the target dose thus it is unlikely the effects are due to non- compliance. There is no evidence of drug dependence.