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| **Maryland Next Gen NCLEX Test Bank Project**  **September 1, 2022** | | |
| **Case Study Topic**  (& Standalone bowtie) | Tardive Dyskinesia | **Author:**  Krysia Hudson, DNP, MS, RN BC  Nicole Mollenkopf, PharmD, MBA, BCPS, BCPPS |

**Case Summary**

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| During a telehealth visit with a client who takes antipsychotic medications for bipolar disorder, the nurse notices the client has moderate uncontrollable movements. The nurse suspects the serious adverse effect of tardive dyskinesia and gathers additional information to begin a plan of care. |

**Objectives**

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| 1. Assess client for actual or potential adverse effects of medications used to treat mental health disorders.  2. Provide client with information about common medication adverse effects.  3. Notify provider of medication adverse effects.  4. Evaluate and document the client responses to actions taken to counteract adverse effects of medications |

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| **Case Study Link** | **Case Study QR Code** |
| <https://umaryland.az1.qualtrics.com/jfe/form/SV_8xqOoOkDqOiQSgK> |  |
| **Bow-tie QR Code** | **Bow-tie Link** |
|  | https://umaryland.az1.qualtrics.com/jfe/form/SV\_cYLRR57lfvvbQTc |

**Case References**

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| 1. Born, C., Amann, B. L., Grunze, H., Post, R. M., & Schärer, L. (2014). Saving time and money: a validation of the self-ratings on the prospective NIMH life-chart method (NIMH-LCM). BMC Psychiatry, 14(1), 1–14. <https://doi.org/10.1186/1471-244X-14-130> 2. Clinical Key. (Feb 22, 2022). Bipolar Disorder. Retrieved from: [https://www-clinicalkey-com.proxy1.library.jhu.edu/#!/content/clinical\_overview/67-s2.0-7a27f11d-0277-4550-95ff-f941ff23d0ec#toc-1](https://www-clinicalkey-com.proxy1.library.jhu.edu/#!/content/clinical_overview/67-s2.0-7a27f11d-0277-4550-95ff-f941ff23d0ec) 3. Handrup, C.T. (2020). Understanding bipolar disorder. *American Nurse.* Retrieved from <https://www.myamericannurse.com/understanding-bipolar-disorder/> 4. Roloff, T., Haussleiter, I., Meister, K., & Juckel, G. (2022). Sleep disturbances in the context of neurohormonal dysregulation in patients with bipolar disorder. International journal of bipolar disorders, 10(1), 6. <https://doi.org/10.1186/s40345-022-00254-8> |

**Case Study Question 1 of 6**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

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| **Nurses’ Notes** | | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non-wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self-harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs /4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | |
| **Medications** | |
| Medication | | | | Dosage/Frequency/ Route | | Time | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| Risperidone | | | | 2 mg once daily at bedtime by mouth | | 2100 |  |
| **Laboratory Report** | | |
| Lab | Results | | | | Reference range | | |
| Cholesterol (Total) | 220 | | | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | |
| BUN | 15 | | | | 10-20 mg/dL | | |
| Creatine (Serum) | 1.2 | | | | 0.9 to 1.4 mg/dL | | |
| Glucose (fasting) | 125 | | | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | |
| HgbA1C | 5.7% | | | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | |
| Hematocrit | 44 | | | | Males: 42-52%;Females: 35-47% | | |
| Hemoglobin | 15 | | | | Males: 13-18 g/dL; Females:12-16 g/dL | | |
| WBC | 6 | | | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | 180,000 | | | | 140,000 to 450,000/ mm3 | | |
| Potassium(serum) | 4.2 | | | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | 140 | | | | 135 to 145 mEq/L | | |
| Other |  | | | |  | | |
| Lithium level | 0.8 | | | | 0.8-1.2 mEq/L | | |

* Drag the 4 clinical findings that need follow-up to the box on the right.

|  |  |
| --- | --- |
| Client Findings | Top 4 Findings |
| Lithium 0.8 mEq/L |  |
| Cholesterol 220 mg/dL\* |  |
| Difficulty sleeping\* |  |
| Weight gain 10 lb/4.53 kg\* |  |
| Tongue thrusting\* |  |
| Sodium 140 mEq/L |  |
| Fine hand tremors |  |

**Scoring Rule: 0/1**

**Rationale:** Tongue thrusting is an extrapyramidal adverse effect caused by risperidone (Burcham & Rosenthal, 2022). This is an adverse effect of the second-generation antipsychotic risperidone. Other metabolic adverse effects include weight gain, hyperlipidemia, and hyperglycemia (Burcham & Rosenthal, 2022). Other concerning issues include the patient’s inability to sleep. Sleep disturbance is a core symptom of bipolar disorder (Roloff et al , 2022). A fine hand tremor is concerning since the client is on lithium, but it is a common side effect and not a top priority.

**Case Study Question 2 of 6**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

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| **Nurses’ Notes** | | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs /4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | | | |
| **Medications** | |
| Medication | | | | Dosage/Frequency/ Route | | Time | | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| Risperidone | | | | 2 mg once daily at bedtime by mouth | | 2100 |  |
| **Laboratory Report** | | |
| Lab | Results | | | | Reference range | | | | |
| Cholesterol (Total) | 220 | | | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | | | |
| BUN | 15 | | | | 10-20 mg/dL | | | | |
| Creatine (Serum) | 1.2 | | | | 0.9 to 1.4 mg/dL | | | | |
| Glucose (fasting) | 125 | | | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | | | |
| HgbA1C | 5.7% | | | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | | | |
| Hematocrit | 44 | | | | Males: 42-52%;Females: 35-47% | | | | |
| Hemoglobin | 15 | | | | Males: 13-18 g/dL; Females:12-16 g/dL | | | | |
| WBC | 6 | | | | 4.5 – 10.5 x 103 cells/mm3 | | | | |
| Platelets | 180,000 | | | | 140,000 to 450,000/ mm3 | | | | |
| Potassium(serum) | 4.2 | | | | 3.5 to 5 mEq/L | | | | |
| Sodium (serum) | 140 | | | | 135 to 145 mEq/L | | | | |
| Lithium level | 0.8 | | | | 0.8-1.2 mEq/L | | | | |

* Which clinical finding is **most** concerning?
* Cholesterol level
* Weight gain
* Difficulty sleeping
* Tongue thrusting\*\*

**Scoring Rule: 0/1**

**Rationale**: Some factors require immediate attention – such as tongue thrusting – since it is an adverse effect of risperidone. This is an extra pyramidal symptom (EPS). If this symptom is not reported early and managed, it can be irreversible (Burcham & Rosenthal, 2022). Other factors, like metabolic adverse effects of risperidone (HgbA1C, weight gain) may occur and should be evaluated, but do not require immediate attention (Burcham & Rosenthal, 2022). Fatigue or difficulty sleeping should be monitored since this could be an indication of depression.

**Case Study Question 3 of 6**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

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| **Nurses’ Notes** | | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs / 4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | |
| **Medications** | |
| Medication | | | | Dosage/Frequency/ Route | | Time | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| Risperidone | | | | 2 mg once daily at bedtime by mouth | | 2100 |  |
| **Laboratory Report** | | |
| Lab | Results | | | | Reference range | | |
| Cholesterol (Total) | 220 | | | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | |
| BUN | 15 | | | | 10-20 mg/dL | | |
| Creatine (Serum) | 1.2 | | | | 0.9 to 1.4 mg/dL | | |
| Glucose (fasting) | 125 | | | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | |
| HgbA1C | 5.7% | | | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | |
| Hematocrit | 44 | | | | Males: 42-52%;Females: 35-47% | | |
| Hemoglobin | 15 | | | | Males: 13-18 g/dL; Females:12-16 g/dL | | |
| WBC | 6 | | | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | 180,000 | | | | 140,000 to 450,000/ mm3 | | |
| Potassium(serum) | 4.2 | | | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | 140 | | | | 135 to 145 mEq/L | | |
| Lithium level | 0.8 | | | | 0.8-1.2 mEq/L | | |

* Drag 1 condition and 1 cause to fill in the blanks of the following sentence.

The nurse should recognize that the client is most likely experiencing caused by

|  |  |
| --- | --- |
| Conditions | Causes |
| Akathisia | Antipsychotic medications\* |
| Dystonia | Rapid weight gain |
| Pseudo-Parkinsonism | Sleep deprivation |
| Tardive dyskinesia\*\* | Worsening bipolar disorder |

**Scoring Rule: Rationale**

**Rationale:** Tongue thrusting is an extrapyramidal symptom, which can be caused by antipsychotic medications, that can be irreversible if not identified early in therapy. (Burchum & Rosenthal, 2022). Other EPS symptoms include akathisia, acute dystonia and pseudo-Parkinsonism.

**Case Study Question 4 of 6**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

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| --- | --- | --- |
| **Nurses’ Notes** | | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs / 4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | |
| **Medications** | |
| Medication | | | | Dosage/Frequency/ Route | | Time | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| Risperidone | | | | 2 mg once daily at bedtime by mouth | | 2100 |  |
| **Laboratory Report** | | |
| Lab | Results | | | | Reference range | | |
| Cholesterol (Total) | 220 | | | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | |
| BUN | 15 | | | | 10-20 mg/dL | | |
| Creatine (Serum) | 1.2 | | | | 0.9 to 1.4 mg/dL | | |
| Glucose (fasting) | 125 | | | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | |
| HgbA1C | 5.7% | | | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | |
| Hematocrit | 44 | | | | Males: 42-52%;Females: 35-47% | | |
| Hemoglobin | 15 | | | | Males: 13-18 g/dL; Females:12-16 g/dL | | |
| WBC | 6 | | | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | 180,000 | | | | 140,000 to 450,000/ mm3 | | |
| Potassium(serum) | 4.2 | | | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | 140 | | | | 135 to 145 mEq/L | | |
| Lithium level | 0.8 | | | | 0.8-1.2 mEq/L | | |

The nurse concludes the client is most likely experiencing tardive dyskinesia.

* Which 2 interventions should the nurse anticipate to including in the plan of care?

* Discontinue risperidone\*\*
* Decrease lithium dose
* Obtain more frequent lithium levels
* Order for a low salt diet
* Monitor for other extrapyramidal symptoms\*\*

**Scoring Rule: 0/1**

**Rationale:** Due to the serious adverse effects of risperidone, the nurse should expect that the drug be discontinued. This client requires maintenance treatment for bipolar disorder and monotherapy with lithium, a mood stabilizer, is usually sufficient. If the patient experiences a manic episode, a different antipsychotic, besides risperidone, might be prescribed ( Micromedex, 2022). The nurse should monitor for other adverse effects (Burchum & Rosenthal, 2022)

**Case Study Question 5 of 6**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

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| --- | --- |
| **Nurses’ Notes** | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs / 4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | | |
| **Medications** |
| Medication | | | | Dosage/Frequency/ Route | | Time | | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 | |
| ~~Risperidone~~ | | | | ~~2 mg once daily at bedtime by mouth~~ | | ~~2100~~ | | Discontinued 4/1 |
| **Laboratory Report** | |
| Lab | | | Results | | Reference range | | | |
| Cholesterol (Total) | | | 220 | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | | |
| BUN | | | 15 | | 10-20 mg/dL | | | |
| Creatine (Serum) | | | 1.2 | | 0.9 to 1.4 mg/dL | | | |
| Glucose (fasting) | | | 125 | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | | |
| HgbA1C | | | 5.7% | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | | |
| Hematocrit | | | 44 | | Males: 42-52%;Females: 35-47% | | | |
| Hemoglobin | | | 15 | | Males: 13-18 g/dL; Females:12-16 g/dL | | | |
| WBC | | | 6 | | 4.5 – 10.5 x 103 cells/mm3 | | | |
| Platelets | | | 180,000 | | 140,000 to 450,000/ mm3 | | | |
| Potassium(serum) | | | 4.2 | | 3.5 to 5 mEq/L | | | |
| Sodium (serum) | | | 140 | | 135 to 145 mEq/L | | | |
| Lithium level | | | 0.8 | | 0.8-1.2 mEq/L | | | |

The prescriber discontinues the risperidone, and the nurse teaches the client about the treatment plan.

* For each possible action, click to specify if the following client education is indicated or not indicated.

|  |  |  |
| --- | --- | --- |
| Action | Indicated | Not indicated |
| Monitoring for uncontrolled orofacial movements | * X |  |
| Monitoring for change in mood and or suicidality | * X |  |
| Changing to a high protein diet |  | * X |
| Maintaining adequate water intake | * x |  |
| Changing to a high fiber diet |  | * x |
| Changing to a low salt diet |  | * x |

**Scoring Rule: 0/1**

**Rationale:** The client has to be monitored for the frequency of tardive dyskinesia (uncontrolled orofacial movements) to see if the tardive dyskinesia is subsiding. The nurse should also teach the client and family to monitor for bipolar symptoms (e.g., depressive symptoms and or suicidality or symptoms of mania). Since the client will be maintained on lithium, which has a very narrow therapeutic index, the client and family must monitor for adverse effects indicative of toxicity. Hydration status is key to maintaining a stable lithium concentration and changes in sodium or hydration status can lead to therapeutic excess or failure (Burcham & Rosenthal, 2022).

**Case Study Question 6 of 6**

A 23-year-old male with bipolar disorder has follow-up health maintenance appointment 2 months later.

|  |  |
| --- | --- |
| **Nurses’ Notes** | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs. / 4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20.  6/1 In person visit. Vitals 135/72, HR 82, RR 16, temp 98.6 F (37 C). Appears unkept, wearing a ripped t-shirt. Speech- slurred and slow. No tongue thrusting or other uncontrolled orofacial movements noted. States he has been unable to work for the past 2 weeks and is “taking a break from school and work.” Said, “I really don’t like work anymore and school is a bore.” Reports taking his meds as directed. Denies thoughts of self-harm. He has lost 5 pounds(2.27kg) since the last visit. | | | | | | | |
| **Medications** |
| Medication | | | | Dosage/Frequency/ Route | | Time | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| ~~Risperidone~~ | | | | ~~2 mg once daily at bedtime by mouth~~ | | ~~2100~~ | Discontinued 4/1 |
| **Laboratory Report** | |
| Lab | | | Results | | Reference range | | |
| Cholesterol (Total) | | | 220 | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | |
| BUN | | | 15 | | 10-20 mg/dL | | |
| Creatine (Serum) | | | 1.2 | | 0.9 to 1.4 mg/dL | | |
| Glucose (fasting) | | | 125 | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | |
| HgbA1C | | | 5.7% | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | |
| Hematocrit | | | 44 | | Males: 42-52%;Females: 35-47% | | |
| Hemoglobin | | | 15 | | Males: 13-18 g/dL; Females:12-16 g/dL | | |
| WBC | | | 6 | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | | | 180,000 | | 140,000 to 450,000/ mm3 | | |
| Potassium(serum) | | | 4.2 | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | | | 140 | | 135 to 145 mEq/L | | |
| Lithium level | | | 0.8 | | 0.8-1.2 mEq/L | | |

The nurse evaluates the effectiveness of the treatment plan.

* For each finding, click to specify if the finding indicates that the client’s status has improved, declined, or is unchanged.

|  |  |  |  |
| --- | --- | --- | --- |
| Finding | Improved | Declined | Unchanged |
| No suicidality noted |  |  | * X |
| Slovenly appearance |  | * X |  |
| No tongue thrusts | * X |  |  |
| Taking meds as ordered |  |  | * X |
| Stopped working and going to school |  | * x |  |

**Scoring Rule: 0/1**

**Rationale:** In reviewing the client’s status, the patient appears to be improving in some manner (no more tardive dyskinesia) but his appearance and stopping school may indicate that his mental status may have declined. The nurse should evaluate the client to determine if the findings indicate depression.

**Bowtie**

A 23-year-old male with bipolar disorder has a health maintenance appointment with the telehealth nurse.

|  |  |  |
| --- | --- | --- |
| **Nurses’ Notes** | | |
| 4/1 Telemedicine visit. Client appeared onscreen in a positive mood, was well groomed; shaved; clothes neat, and non- wrinkled. His speech had a normal cadence, was organized, and logical. No slurring or stuttering. Occasional tongue thrusting noted while speaking that was reported to have started 1 day ago. Fine hand tremor noted when client smoothed hair back during conversation. Client reports that he is still attending school and is doing well. He is working a part time job on weekends for local restaurant. States that he has been taking his meds as directed, he has no thoughts of self- harm, but he has had difficulty sleeping more than a few hours per night. He complains that he has gained weight (10 lbs / 4.53 kg) recently and has not had the energy to work out. Self-obtained home vital signs of 128/72, HR 82, RR 20. | | | | | | | |
| **Medications** | |
| Medication | | | | Dosage/Frequency/ Route | | Time | |
| Lithium Carbonate | | | | 900 mg twice per day by mouth | | 0800 | 1800 |
| Risperidone | | | | 2 mg once daily at bedtime by mouth | | 2100 |  |
| **Laboratory Report** | | |
| Lab | Results | | | | Reference range | | |
| Cholesterol (Total) | 220 | | | | <200 mg/dL normal  200-239 mg/dL borderline  >240 mg/dL high | | |
| BUN | 15 | | | | 10-20 mg/dL | | |
| Creatine (Serum) | 1.2 | | | | 0.9 to 1.4 mg/dL | | |
| Glucose (fasting) | 125 | | | | Normal < 99 mg/dL  Prediabetes 100-125mg/dl  Diabetes> 126mg/dL  Preterm infants 40mg/dL-60mg/dL | | |
| HgbA1C | 5.7% | | | | Normal <5.7%  Prediabetes 5.7-6.4%  Diabetes >6.5% | | |
| Hematocrit | 44 | | | | Males: 42-52%;Females: 35-47% | | |
| Hemoglobin | 15 | | | | Males: 13-18 g/dL; Females:12-16 g/dL | | |
| WBC | 6 | | | | 4.5 – 10.5 x 103 cells/mm3 | | |
| Platelets | 180,000 | | | | 140,000 to 450,000/ mm3 | | |
| Potassium(serum) | 4.2 | | | | 3.5 to 5 mEq/L | | |
| Sodium (serum) | 140 | | | | 135 to 145 mEq/L | | |
| Lithium level | 0.8 | | | | 0.8-1.2 mEq/L | | |

* Complete the diagram by dragging from the choices below to specify what condition the client is most likely experiencing, 2 actions the nurse should take to address that condition, and 2 parameters the nurse should monitor to assess the client’s progress.

|  |  |  |
| --- | --- | --- |
| Action to take |  | Parameter to monitor |
|  | Condition most likely experiencing |  |
| Action to take |  | Parameter to monitor |
|  |  |  |
| **Actions to take** | **Potential conditions** | **Parameters to monitor** |
| stop risperidone\* | Pseudo Parksonism | Hand tremor |
| decrease lithium | Lithium toxicity | Lip smacking/tongue thrusting\* |
| Offer a sedative | Tardive dyskinesia\* | Depressive symptoms\* |
| Assess for other extra pyramidal symptoms \* | Akathisia | Hydration status |
| Evaluate salt intake |  | Mobility changes of the client |

**Scoring Rule: 0/1**

**Rationale:** Tardive dyskinesia (tongue thrusting) is the most concerning issue here. It is an adverse effect of risperidone. This is an extra pyramidal symptom (EPS). If this symptom is not reported early and managed, it can be irreversible (Burcham & Rosenthal, 2022). Some patients may be on an antipsychotic and a mood stabilizer like lithium. Decreasing lithium will not affect the EPS, and offering a sedative will mask the symptom. Monitoring salt intake is always necessary when a patient is on lithium. The other conditions are also EPS. In monitoring this patient for tardive dyskinesia, the nurse will continue to monitor for other EPS and depressive and or manic symptoms expressed by the client (since the medications will need to be adjusted).